NINETEENTH ANNUAL REPORT

# UNIVERSITY OF MARYLAND

## EXTENSION SERVICE

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FOR THE YEAR 1933

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**Cooperative Extension Work In Agriculture and Home Economics, Extension Service, University of Maryland, and the United States Department of Agriculture Cooperating.**

**T. B. SYMONS, Director**

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**Distributed in furtherance of acts of Congress of May 8 and June 30, 1914.**

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## COUNTY AGENTS—1933

| County | Name | Headquarters |
|---|---|---|
| Allegany | R. F. McHenry | Cumberland |
| Anne Arundel | Stanley E. Day | Annapolis |
| Baltimore | H. B. Derrick | Towson |
| Calvert | John B. Morsell | Prince Frederick |
| Caroline | W. H. Evans | Denton |

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# UNIVERSITY OF MARYLAND

## EXTENSION SERVICE

FOR THE

YEAR 1933

# LETTERS OF TRANSMITTAL

DR. R. A. PEARSON,
*President, University of Maryland:*

I have the honor to submit herewith the Nineteenth Annual Report covering the work of the Extension Service of the University of Maryland, in cooperation with the U. S. Department of Agriculture, for the calendar year 1933, together with a financial report for the fiscal year ending June 30, 1933.

Respectfully submitted,

THOMAS B. SYMONS,
*Director, Extension Service.*

January 1, 1934.

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HON. GEORGE M. SHRIVER,
*Chairman, Board of Regents:*

In accordance with the requirements of the Act of Congress, approved May 8, 1914, and known as the Smith-Lever Act, I have the honor to transmit herewith, for submission to the Governor of the State, the Nineteenth Annual Report covering the work of the Extension Service of the University of Maryland, in cooperation with the U. S. Department of Agriculture, for the calendar year 1933, together with a financial report for the fiscal year ending June 30, 1933.

Respectfully submitted,

R. A. PEARSON,
*President.*

January 1, 1934.

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TO HIS EXCELLENCY ALBERT C. RITCHIE,
*Governor of Maryland:*

I have the honor to transmit herewith the Nineteenth Annual Report covering the work of the Extension Service of the University of Maryland, in cooperation with the U. S. Department of Agriculture, submitted to me through the President of the University.

Respectfully submitted,

GEORGE M. SHRIVER,
*Chairman, Board of Regents.*

January 1, 1934.

# NINETEENTH ANNUAL REPORT

OF THE

# UNIVERSITY OF MARYLAND

## EXTENSION SERVICE

FOR THE YEAR 1933

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By THOMAS B. SYMONS, *Director*

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## INTRODUCTION

IN REPORTING the activities of the Extension Service for the last year I am impressed with the tremendous change in policies and work of our Extension Agents and Specialists that has taken place during that period. It is not possible to record in this report the changed situation and developments therefrom which undoubtedly will be momentous in guiding the agricultural affairs of this nation in future years. I will only mention that, with the advent of the present administration on March 4, this country launched upon a program of controlled production in an effort to meet the emergency that confronted farmers and interests generally. The essence of this policy is expressed in the following brief statement by the Hon. Henry A. Wallace, Secretary of Agriculture:

"We have chosen at last to recognize a changed situation, and to stop running away from facts. We recognize now that limits must be put upon individual effort; that we cannot go on blindly farming each other out of business, or working each other out of jobs. We recognize that exactly as individual business must be planned and ordered; so must all business, including farming, be planned and ordered as one. We recognize that this bringing of order out of chaos should extend in time, as soon as possible, into world agreements. But until such agreements can be made we must work to set our own house in order. To do so is not incompatible with plans for world cooperation. As a matter of

fact, we must learn to cooperate at home before we are fit to practice world cooperation in agriculture, trade, and the arts of peace."

With the passage of the Agricultural Adjustment Act, with so tremendous significance in approaching this end, some doubt was experienced for a time as to whether the Extension forces should be employed in carrying out the purposes of the Act through the Department of Agriculture and the Land Grant Institutions.

Fortunately for all interests concerned, I believe, these forces were used in prosecuting the various campaigns for reduction of crop acreage and rallying farmers behind the emergency program.

It is fair to state that this program was developed principally by the leaders of our farm organizations. Consequently, it is not a program projected on to farmers, but one of legislation enacted to carry out the best thought of the leaders in the farming industry.

It was fortunate for Maryland that our Extension Service was fully organized and ready to accept the responsibility of carrying out the national program as applied to this State. Our people have responded well to the new proposals, which are quite different from previously conceived ideas on the part of many as to the best means for meeting the emergency and curtailing the surplus of products that was fast accumulating throughout the nation.

These special control and reduction campaigns are admittedly of an emergency character. There remains to be developed, therefore, permanent policies in behalf of the various phases of agriculture that will be lasting in their effect in maintaining a fair parity between prices of products the farmer has to sell and those which he must buy. For years farmers have endeavored earnestly to secure such parity with industry and the fundamental thought back of the Adjustment legislation is to establish this principle.

On account of our varied agriculture many of the emergency programs do not appeal as strongly to Eastern agriculture as to the Middle West and other sections that lead in production of staple crops. However, Maryland produces sufficient quantities of these staple products to be a factor and to be enlisted in the campaign for reduction. I am persuaded to reiterate my belief that a future long-time program for controlling surpluses will not continue along the line of present policies for controlled acreage. It is recognized that the price of a commodity cannot be maintained without con-

trol of production, but it is not believed that the farmers of this nation are ready for regimentation of their industry, with possibly a licensing system, as part of a control program.

I am inclined to believe that ultimately some such plan will be found desirable as was adopted by our dairymen and inaugurated in this State ten years ago, whereby allotments are given to producers as basic production for which they receive a fair basic price. All surplus products raised are utilized, but are paid for at a much lower price, based upon conversion of the product into a manufactured commodity, or one which it would be feasible and practicable to store. It seems that such a policy would obviate the necessity for attempting a controlled acreage policy and would largely govern production of surplus products. This principle has proved satisfactory in our milk situation and we believe that it is applicable to other basic crops of the country.

These thoughts are suggested to my mind by the paradox of controlling acreage and production in the light of millions of unemployed and under-fed people. This situation seems to demand that we manage our abundance of supplies in some manner that that will enable proper distribution to the people and at the same time provide a fair return to those who grow them intelligently.

## Reduced State Appropriation

DUE TO NECESSITY for reducing State expenses and the need for providing funds for relief activities, appropriations for the University were greatly reduced by the last Legislature. It became necessary for all divisions to make a cut of approximately 40 per cent. This entailed quite a hardship upon the Extension Service, especially because it came at a time when tremendously increased demands were being made upon the Service as a whole and the personnel in particular. Fortunately, this budget was not effective until October 1, when a uniform reduction of 10 to 15 per cent in salaries of all employees was put into effect in accordance with the State policy. It is hoped that this situation may be corrected with improvement of conditions.

All forces of the Extension Service accepted the cut in good spirit and it has in no way affected the efficiency of the Service from the standpoint of personnel. It has exacted a tremendous toll in the way of inconvenience to many individuals and curtailment of many activities.

Fortunately, the funds from the Adjustment Administration have supplemented in part the loss sustained in the appropriation, which enabled us to carry on the campaigns efficiently.

## Agricultural Adjustment Activities

**Wheat Campaign**—A campaign for adjustment of wheat production was foremost among activities carried on in connection with the national program for adjusting production to the effective demand. The Extension Service was duly authorized by the U. S. Department of Agriculture to conduct the campaign in this State. While wheat acreage in Maryland is small in comparison with the total acreage in the country, being about 400,000 acres, wheat has been an important cash crop and in some sections of the State it is one of the main crops.

In launching this campaign, it was deemed advisable to enlist the cooperation of a State Committee. Such committee was appointed by Governor Albert C. Ritchie, with the Director of Extension as chairman. Other members were Charles T. Cockey, Jr., President of the Maryland Farm Bureau Federation; Senator A. G. Ensor, Master of the State Grange; W. R. Holloway, of the Eastern Shore; and W. E. Burrall, of Western Maryland. This committee served as an aid to the Extension Service in planning the campaign and in applying the national policy to conditions in this State.

It was the expressed desire of Federal authorities that every wheat grower be given an understanding of the situation with regard to wheat, the need for reduction of production, and an opportunity to enter into a contract with the Secretary of Agriculture whereby he would receive benefit payments in return for reducing his production of wheat. In Maryland, this desire was made practically a one-hundred-per-cent reality. By thorough organization, backed by the confidence of farmers in the Extension Service, which had been established through years of experience and contact with county agents, home demonstration agents and specialists, the response to the wheat control campaign was most gratifying.

One of the most intensive educational campaigns ever conducted in the State was carried out in connection with the wheat control program. In addition to the State Advisory Committee, similar committees were selected in each of the counties and the

assistance and support was enlisted of farm leaders, both in the State as a whole and in the several counties.

Two or more series of meetings were held in all counties whereby virtually all wheat growers who were sufficiently interested to attend could easily obtain first-hand information. With the excellent cooperation of the press of the State, the radio stations, by liberal use of letters, and large numbers of personal calls, a deter-

***County Agent Shoemaker's office in Frederick County during the wheat campaign. Conditions were similar in practically all offices of county agents.***

mined effort was made to reach all wheat growers. The success of this intense effort is reflected in the high percentage of Maryland wheat growers and wheat acreage placed under contract in the control program.

This required an enormous amount of work on the part of our Extension forces. A great amount of time of the Agents was devoted to putting across the campaign. Naturally, it broke into the regular programs of both agents and specialists, but notwith-

standing this emergency work, a survey of the reports indicates substantial progress in their regular work.

Although the figures are not absolutely final and complete, due to delay and adjustment in a small number of contracts, the following table shows approximately the results of the wheat production reduction campaign:

PROGRESS OF WHEAT REDUCTION CAMPAIGN

| County | No. of Contracts | Acres in Contracts* | Acres in Co. Crop Estimates | Per Ct. of Acres Signed | Benefit Payments† |
|---|---|---|---|---|---|
| Allegany | 105 | 1,121 | 1,600 | 70 | $1,872.20 |
| Anne Arundel | 17 | 383 | 2,000 | 19 | 527.40 |
| Baltimore | 344 | 8,042 | 17,700 | 45 | 17,566.40 |
| Calvert | 24 | 599 | 900 | 67 | 1,045.20 |
| Caroline | 470 | 15,350 | 19,200 | 80 | 26,196.70 |
| Carroll | 790 | 23,762 | 45,100 | 53 | 45,810.20 |
| Cecil | 254 | 12,208 | 21,000 | 58 | 26,585.60 |
| Charles | 92 | 2,384 | 6,700 | 36 | 3,862.60 |
| Dorchester | 444 | 14,157 | 19,200 | 74 | 28,633.50 |
| Frederick | 1,408 | 54,137 | 64,700 | 84 | 98,796.80 |
| Garrett | 41 | 319 | 1,700 | 19 | 673.40 |
| Harford | 221 | 4,117 | 12,100 | 34 | 10,227.80 |
| Howard | 224 | 7,544 | 14,200 | 53 | 16,792.20 |
| Kent | 487 | 28,924 | 32,800 | 88 | 51,871.70 |
| Montgomery | 778 | 25,495 | 31,900 | 80 | 42,510.00 |
| Prince George's | 107 | 3,019 | 5,300 | 57 | 4,165.40 |
| Queen Anne's | 600 | 33,054 | 42,700 | 77 | 58,070.80 |
| St. Mary's | 118 | 2,932 | 10,300 | 28 | 4,929.40 |
| Somerset | 167 | 2,670 | 3,700 | 72 | 5,464.60 |
| Talbot | 539 | 27,006 | 30,900 | 87 | 50,563.40 |
| Washington | 372 | 16,782 | 46,500 | 36 | 32,037.55 |
| Wicomico | 57 | 1,184 | 2,300 | 51 | 1,932.00 |
| Worcester | 158 | 4,070 | 6,900 | 59 | 6,767.60 |
| Total | 7,817 | 289,259 | 439,400 | 66 | $536,902.45 |

* Include those which were reported as delayed contracts.

† Gives the amounts received to February 28, 1934. An additional payment of eight cents a bushel, less administrative expense in counties, will be made later.

**Tobacco Campaign**—Early in the summer it became evident that the Adjustment Administration was interested in assisting tobacco growers and desired to reduce the tobacco stocks which had accumulated in the various tobacco-producing sections. During these depressed times and until the last two years, Maryland tobacco had been bringing fair prices. However, with the more recent reduction in exports and in demand, accumulations of low grade stocks have caused growers serious loss and were threatening to ruin the market for the product.

With the cooperation of leading tobacco growers and officials of the Maryland Tobacco Growers' Association, the county agents and specialists devoted a great deal of time to working out a program for submission to the Tobacco Section of the Agricultural Adjustment Administration in Washington.

After numerous conferences, it was found that only a limited processing tax could be placed upon Maryland type tobacco and that it would provide only about $160,000 for adjustment of production in this area. Such tax was authorized by the Secretary of Agriculture and the form of contract to be offered Maryland growers is just about complete at the end of the year. Plans are being made for carrying on a campaign of education at the beginning of 1934, and for enlisting growers in the adjustment program. When put into effect, it is believed that the plan will be an important step toward placing the tobacco industry of Maryland on a more stable basis.

**Adjustment of Corn and Hog Production**—In line with the national program and plan for adjusting production of corn and hogs, arrangements are being made to conduct a campaign in all Maryland counties where these crops are grown to a sufficient extent. It is planned to carry out this campaign along the same general lines and with the same degree of thoroughness that the wheat campaign was conducted. Other than laying the foundation for the campaign, this work will not show definite progress until the beginning of 1934, but it will be a major activity of the Extension Service until all growers have been informed of the situation, the terms of the contract offered them, and have had an opportunity to sign contracts.

**Emergency Dairy Activities**—Efforts to improve conditions associated with marketing of dairy products have received a great deal of attention. Numerous conferences have been held and marketing agreements were worked out and put into effect in the Baltimore and Philadelphia markets; attempts were made to develop a satisfactory agreement for the Washington market, but it had not been finally adopted at the time a decision to change the policy in handling the dairy problem was made by the Adjustment Administration.

Looking toward a more permanent solution of the dairy marketing problem, a large amount of data has been assembled regarding the many factors bearing upon the situation and measures which may prove helpful and practicable.

**Other Adjustment Activities**—In addition to the organized campaigns which have been conducted or are in the process of organization and planning, definite accomplishments have been made in the situation associated with a number of other important Maryland farm products. While these are somewhat less extensive in their effects than the campaigns mentioned, they have proved of great value to the growers of certain specific crops.

Following a series of conferences with officials of the Adjustment Administration, an agreement was arranged whereby the buyers of tomatoes for canning increased by 25 per cent the price for which producers had contracted to sell their crop. Later it was arranged for similar protection in the prices paid for the portion of the tomato crop that was not under contract. At the time agreements for these price increases were made, it meant many thousands of dollars to the tomato growers of the State, but damage to the crop by storms created so great demand that even higher prices prevailed than those agreed upon.

Agreements were also arranged for an increase in the price of sweet corn for canning above the price included in contracts.

Later a significant move was made in the direction of an effort to stabilize the tomato canning industry and the production of the raw product in this area. A conference of representatives of producers and canners was called by the Director of Extension and an agreement was reached in favor of eliminating the open acreage in this area and providing for contracting by canners of all tomatoes grown. Such a policy, it is believed, would be in the interest of a long-time program for stabilization of the industry and would eliminate largely the fluctuation of prices that often results from the practice of raising a substantial amount of open acreage tomatoes.

Consideration has been given and conferences have been held with a view to developing a marketing agreement for poultry and poultry products, but thus far a definite plan has not been adopted.

Some consideration has been given to a plan for adjustment of acreage planted in white potatoes.

In addition to the crops classed as basic in the Agricultural Adjustment Act, the Secretary of Agriculture was given authority to effect marketing agreements for other crops and commodities with a view to bringing prices to a parity with those in the base

period, which in most cases was 1909 to 1914. None of these agreements is now in effect, but a great deal of preliminary work and investigation has been done and it is anticipated that a number of such agreements will be perfected during 1934.

**Farm Credit**—Conditions with regard to obtaining needed credit by Maryland farmers have not been as acute apparently as has been the case in many sections of the country. However, there has been need for a considerable amount of educational work

***County Agent Magruder gives a farmer information on the new Federal Farm Credit Administration.***

and dissemination of information concerning the newly created facilities supplied by the Federal Government. Not only have the offices of county agents and the headquarters office of the Extension Service served as clearing houses for information regarding the various types of loans available from the Federal Farm Credit Administration, the necessary steps to obtain such loans, etc., but the Service has cooperated vigorously with the Administration in carrying to farmers generally such information as it desired to have conveyed to them.

Near the close of the year, when a Crop Production Credit Corporation for this district had been established, the Extension Service and particularly the county agents, gave active and wholehearted assistance in organizing Crop Production Credit Associations in all sections of the State. Some of these Associations are functioning and within the very near future this type of credit will be conveniently available to all farmers. It is assumed that farmers may make application for production credit at the office of the county agent and that it will be taken care of by the secretary of the Credit Association in that region.

Among the more extensively organized activities in connection with alleviating difficulties in the way of indebtedness was the formation of Conciliation Committees throughout the State. Following the appointment by Governor Ritchie of a State Conciliation Committee, of which the Director of the Extension Service is a member, a similar committee was formed in each county. In practically all counties the committee consists of a farmer, a banker, and one business man, with the county agent serving as secretary and rendering such other service as may be possible. With this set-up, it is the aim to work out a mutually satisfactory solution to the problems confronting farm debtors and creditors who have become involved to the extent that they cannot find a way out. While it is anticipated that cases of this nature will not constitute a large number, and surveys have shown that such is the situation, the service is vital to those who need it.

## National Rural Electric Project

IT WAS NECESSARY to greatly curtail this project, which was started in 1928. The work has been conducted under a State Committee, which included representatives of farmers' organizations, public utilities, and University authorities, with the Director of Extension as secretary.

By terms of the original agreement the project was officially concluded as a national project June 30, 1933. There remained, however, certain balances in the funds and accumulated equipment, as well as certain studies that had not been compiled and reported. The management of the project, consisting of the above representatives, decided it was best to conclude the work of the project and to contribute the remaining funds and all assets to the University of Maryland. The President and Board in accepting

same, placed the conclusion of this work under the administration of the Extension Service and the Service continued the work with the former personnel on a restricted basis. The activities of the project were closely identified with Extension work in this field and consequently the completion of this work was of assistance in carrying on Extension activities.

## Cooperating Agencies

THE EXTENSION SERVICE has continued its policy of joining forces with other agencies and organizations in constructive undertakings in behalf of the agriculture of the State. The fine cooperation extended by the various agencies is gratefully acknowledged. I cannot express too strongly the value of the harmony that has existed among all agricultural forces in the State in attempting to work out the new and complex problems. There has been the closest harmony between the general farm organizations—the Farm Bureau and the Grange—and also the commodity organizations. Likewise, this harmony has existed between the Service and all types of organizations.

It is the aim in this report to give due credit to the several cooperating agencies in discussions of the particular projects with which they were connected. If in any case such credit is omitted, I hereby record the sincere appreciation of the Service for all assistance and support received in carrying on its many lines of work.

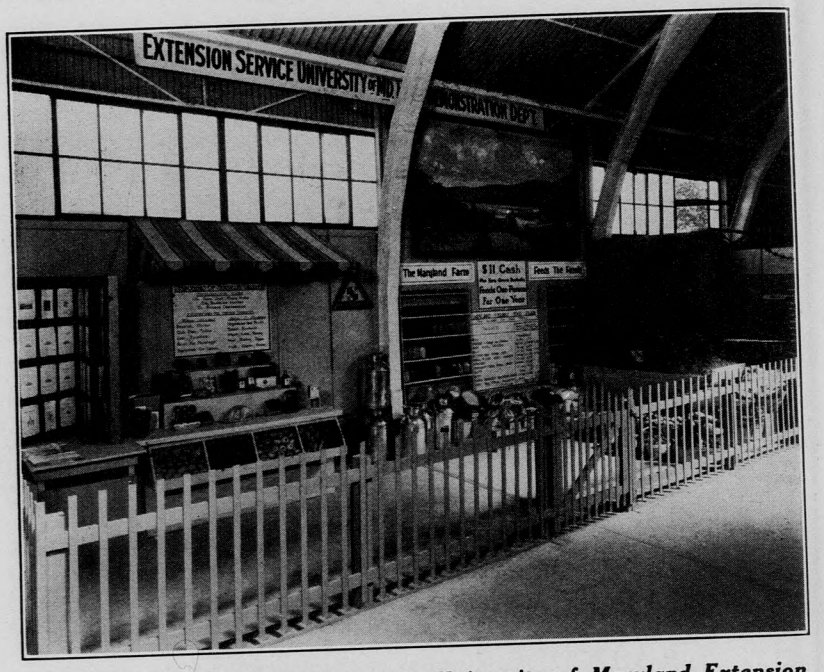
## Home-Makers Meet the Challenge

SPECIAL MENTION is made of the spirit and determination with which the home-makers met the challenge arising from changed economic conditions. Under the supervision of Miss Venia M. Kellar, State Home Demonstration Agent, they have not only made notable achievements in carrying out programs similar to those of former years, but have also dealt effectively with many new problems.

The aid which was given in welfare work in the several counties is particularly noteworthy; likewise, the achievements in the line of adding to the farm income, especially through the medium of farm women's markets. Their success in meeting the nutritional needs of their families by working out low-cost diets and utilizing home-grown products was an important factor in solving the

financial problem in thousands of farm homes. Their ability to devise ways and means for clothing the family at low cost and utilizing materials on hand was remarkable.

Despite the efforts forced upon them along the lines mentioned, it is most gratifying that the home-makers retained their interest in the lines of work designed to increase the comfort and attractiveness of their rural homes. Along with their increased interest




*An exhibit at Timonium Fair by the University of Maryland Extension Service depicted some methods by which farm women can reduce the cost of food in the home and dispose of surplus products through attractive roadside markets.*

in vegetable gardens, poultry and dairying, their interest in improvement of both interior and exterior of the home continued.

Attendance at the annual Rural Women's Short Course, which is held at the University in June under the auspices of the Extension Service, was only slightly less than in former years. It is a high tribute to the home-makers of the State and also to the Short Course that so large a number attended in spite of the difficult economic conditions.

## Crop Yields and Values

IT IS ENCOURAGING to record that the total farm value of the principal field, fruit and truck crops of Maryland showed a substantial increase in 1933 over the low point registered in 1932. Preliminary figures issued by the Division of Crop Estimates of the U. S. Department of Agriculture, show a total value of $32,408,000 for 1933, compared with $25,834,000 in 1932, and $35,837,000 in 1931. The value this year is still far short of the values prevailing a few years ago, but it does not include more than a half million dollars paid to farmers in connection with crop adjustment benefits. It is gratifying that the trend is in the right direction.

Yields of most crops were somewhat below the average, but there was sufficient improvement in prices over the preceding year to account for the increase in total value recorded.

There was an increase in acreage planted in corn, but the average yield per acre of 25 bushels gave a total production of only 14,000,000 bushels. This is nearly two and one-half million bushels less than in 1932. However, with an average price of 46 cents a bushel, the crop was valued at $6,440,000 compared with $5,096,000 last year.

Wheat acreage was 15,000 acres greater than in 1932 and the average yield was 16 bushels per acre. This increase in both acreage and yield made a total production of 6,320,000 bushels, or a little less than one and one-half million bushels increase over the preceding year. With an average price of 83 cents a bushel the value of the crop was $5,246,000 compared with $2,470,000 in 1932. Added to this increase, wheat growers received more than a half million dollars in benefit payments.

There was a small decrease in the acreage of oats and rye and an increase of 2,000 acres in barley. Total production of all these crops was lower than last year, but substantial increase in prices gave a larger total value for each of the three crops.

Acreage, yield and total production of potatoes were nearly the same as last year, but with more than double the average price, the value of the crop was almost doubled. The value for 1933 was $2,943,000 and for 1932 was $1,483,000.

Tobacco acreage was a little smaller and severe damage by a storm in August resulted in the low yield of 550 pounds per acre.

Production is estimated at 17,710,000 pounds and the value of the crop at $3,188,000. This is more than $1,000,000 less than last year.

Production of apples and pears was only a little less than in 1932 and the peach crop was slightly larger. Prices were substantially higher and the total value of the three crops materially improved.

A small increase in acreage planted in tomatoes for canning was more than offset by the damage done by a severe storm late in the season. Improved prices over those prevailing in 1932 resulted in a total value of crop about the same as in that year. Prices for cantaloupes and strawberries were decidedly lower than last year and the total value of these crops was much less.

There was no very outstanding change in the numbers of livestock on farms. Estimates show about 4,000 less horses and colts, about 2,000 more dairy cows and heifers, and about 5,000 more swine. Prices of horses and mules showed a good increase, and there was a fair increase in prices of sheep and lambs, while prices of other kinds of livestock remained about the same.

In accordance with our custom of former years, a record of the estimated acreages, yields, and values of Maryland's principal crops is included in this report. These estimates are furnished by the Bureau of Agricultural Economics, U. S. Department of Agriculture, cooperating with our Service, and show the acreages, yields and values of the several crops for 1933, with comparable figures for the two preceding years. The estimated numbers and values of livestock on farms January 1, 1934, are given also.

## PRODUCTION AND VALUE OF CROPS

| Crop and Year | Acres | Per Acre | Total | Unit | Per Unit | Total | Value Per Acre |
|---|---|---|---|---|---|---|---|
| **Corn*** | | | | | | | |
| 1933 | 560,000 | 25.0 | 14,000,000 | Bus. | $.46 | $6,440,000 | $11.50 |
| 1932 | 548,000 | 30.0 | 16,440,000 | " | .31 | 5,096,000 | 9.30 |
| 1931 | 545,000 | 38.0 | 20,710,000 | " | .40 | 8,284,000 | 15.20 |
| **Wheat** | | | | | | | |
| 1933 | 395,000 | 16.0 | 6,320,000 | " | .83 | 5,246,000 | 13.28 |
| 1932 | 380,000 | 13.0 | 4,940,000 | " | .50 | 2,470,000 | 6.50 |
| 1931 | 404,000 | 24.0 | 9,696,000 | " | .52 | 5,042,000 | 12.48 |
| **Oats** | | | | | | | |
| 1933 | 50,000 | 22.0 | 1,100,000 | " | .39 | 429,000 | 8.58 |
| 1932 | 57,000 | 25.0 | 1,425,000 | " | .27 | 385,000 | 6.75 |
| 1931 | 67,000 | 30.0 | 2,010,000 | " | .40 | 804,000 | 12.00 |
| **Barley** | | | | | | | |
| 1933 | 23,000 | 26.0 | 598,000 | " | .52 | 311,000 | 13.52 |
| 1932 | 21,000 | 29.0 | 609,000 | " | .37 | 225,000 | 10.71 |
| 1931 | 16,000 | 33.0 | 528,000 | " | .45 | 238,000 | 14.88 |
| **Rye** | | | | | | | |
| 1933 | 17,000 | 13.0 | 221,000 | " | .76 | 168,000 | 9.88 |
| 1932 | 19,000 | 12.0 | 228,000 | " | .46 | 105,000 | 5.53 |
| 1931 | 21,000 | 18.0 | 378,000 | " | .50 | 189,000 | 9.00 |
| **Buckwheat** | | | | | | | |
| 1933 | 6,000 | 18.0 | 108,000 | " | .59 | 64,000 | 10.67 |
| 1932 | 5,000 | 17.6 | 88,000 | " | .41 | 36,000 | 7.20 |
| 1931 | 7,000 | 22.0 | 154,000 | " | .47 | 72,000 | 10.29 |
| **Potatoes** | | | | | | | |
| 1933 | 30,000 | 90.0 | 2,700,000 | " | 1.09 | 2,943,000 | 98.10 |
| 1932 | 31,000 | 92.0 | 2,852,000 | " | .52 | 1,483,000 | 47.84 |
| 1931 | 32,000 | 105.0 | 3,360,000 | " | .55 | 1,848,000 | 57.75 |
| **Sweet Potatoes** | | | | | | | |
| 1933 | 6,000 | 140.0 | 840,000 | " | .55 | 462,000 | 77.00 |
| 1932 | 8,000 | 111.0 | 888,000 | " | .35 | 311,000 | 38.88 |
| 1931 | 11,000 | 183.0 | 2,013,000 | " | .50 | 1,006,000 | 91.46 |
| **Hay (All Tame)** | | | | | | | |
| 1933 | 403,000 | 1.31 | 529,000 | Tons | 11.40 | 6,031,000 | 14.97 |
| 1932 | 403,000 | 1.16 | 468,000 | " | 9.50 | 4,446,000 | 11.03 |
| 1931 | 380,000 | 1.23 | 467,000 | " | 12.00 | 5,604,000 | 14.75 |
| **Tobacco** | | | | | | | |
| 1933 | 32,200 | 550.00 | 17,710,000 | Lbs. | .124 | 3,188,000 | 99.00 |
| 1932 | 33,900 | 775.00 | 26,272,000 | " | .17 | 4,466,000 | 131.74 |
| 1931 | 38,200 | 735.00 | 28,077,000 | " | .15 | 4,212,000 | 110.26 |
| **Apples (Total Crop)** | | | | | | | |
| 1933 | ..... | .... | 1,312,000 | Bus. | .75 | 984,000 | ..... |
| 1932 | ..... | .... | 1,368,000 | " | .50 | 684,000 | ..... |
| 1931 | ..... | .... | 3,458,000 | " | .45 | 1,556,000 | ..... |
| **Apples (Commercial)** | | | | | | | |
| 1933 | ..... | .... | 219,000 | Bbls. | 2.20 | 482,000 | ..... |
| 1932 | ..... | .... | 252,000 | " | 1.60 | 403,000 | ..... |
| 1931 | ..... | .... | 650,000 | " | 1.40 | 910,000 | ..... |

## PRODUCTION AND VALUE OF CROPS—Continued

| Crop and Year | Acres | Per Acre | Total | Unit | Per Unit | Total | Value Per Acre |
|---|---|---|---|---|---|---|---|
| **Peaches** | | | | | | | |
| 1933 | ..... | .... | 400,000 | Bus. | 1.00 | 400,000 | ..... |
| 1932 | ..... | .... | 348,000 | " | .85 | 296,000 | ..... |
| 1931 | ..... | .... | 820,000 | " | .60 | 492,000 | ..... |
| **Pears** | | | | | | | |
| 1933 | ..... | .... | 66,000 | " | .61 | 40,000 | ..... |
| 1932 | ..... | .... | 92,000 | " | .55 | 51,000 | ..... |
| 1931 | ..... | .... | 149,000 | " | .45 | 67,000 | ..... |
| **Grapes** | | | | | | | |
| 1933 | ..... | .... | 596 | Tons | 55.37 | 33,000 | ..... |
| 1932 | ..... | .... | 625 | " | 49.60 | 31,000 | ..... |
| 1931 | ..... | .... | 671 | " | 55.14 | 37,000 | ..... |
| **Tomatoes (For Mfg.)** | | | | | | | |
| 1933 | 38,000 | 2.6 | 98,800 | " | 15.30 | 1,512,000 | 39.70 |
| 1932 | 36,000 | 4.3 | 154,800 | " | 9.70 | 1,502,000 | 41.72 |
| 1931 | 38,000 | 2.0 | 76,000 | " | 12.00 | 912,000 | 24.00 |
| **Sweet Corn (For Mfg.)** | | | | | | | |
| 1933 | 19,600 | 1.8 | 35,300 | " | 8.50 | 300,000 | 15.31 |
| 1932 | 20,500 | 1.5 | 30,800 | " | 6.80 | 209,000 | 10.20 |
| 1931 | 39,800 | 1.8 | 71,600 | " | 11.70 | 838,000 | 21.06 |
| **Cantaloupes** | | | | | | | |
| 1933 | 7,700 | 110 | 847,000 | Crts. | .50 | 424,000 | 55.07 |
| 1932 | 8,100 | 103 | 834,000 | " | .86 | 717,000 | 88.52 |
| 1931 | 7,550 | 90 | 680,000 | " | .75 | 510,000 | 67.55 |
| **Strawberries** | | | | | | | |
| 1933 | 8,060 | 105 | 846,000 | " | .95 | 712,000 | 88.34 |
| 1932 | 7,600 | 80 | 608,000 | " | 1.35 | 821,000 | 108.03 |
| 1931 | 4,300 | 60 | 258,000 | " | 2.75 | 710,000 | 165.12 |

## LIVE STOCK ON FARMS

### January 1, 1934

| | Number | Value Per Head | Total Value |
|---|---|---|---|
| Horses and Colts | 84,000 | $81.00 | $6,844,000 |
| Mules and Mule Colts | 28,000 | 103.00 | 2,884,000 |
| Dairy Cows and Heifers | 190,000 | 36.00 | 6,840,000 |
| Heifers (1-2 years old) | 27,000 | 19.00 | 513,000 |
| Other Cattle | 68,000 | 16.00 | 1,091,000 |
| Sheep and Lambs | 109,000 | 4.50 | 494,000 |
| Swine | 181,000 | 4.70 | 855,000 |

## ADMINISTRATION

VERY LITTLE CHANGE was necessary in administration of the Service. Comparatively few resignations were received.

Mr. Paul Nystrom and Mr. C. E. Wise were temporarily designated to assist in supervising the wheat adjustment campaign.

Relationship of the Service with farm organizations has continued exceedingly sympathetic and cooperative. We are fortunate in the harmony that exists between our farm organizations and all workers in the agricultural field in the State.

It is exceedingly gratifying that during the depressed situation surrounding agriculture and the relief from taxes desired, the net reduction in appropriations by Boards of County Commissioners was only about eight per cent. In view of the agitation by harrassed taxpayers in several sections of the State desiring drastic reductions in the levy, this response was a high tribute to the satisfaction felt by the people and the support given Extension representatives.

Perhaps in no period in the history of the Service have all employees been subjected to greater pressure and additional work than during the last year. More calls were made upon the Service than ever before and, as stated, reduction in salaries was a great hardship upon the force.

I am indebted to all members of the Service for their loyal and earnest support, but particularly to Mr. E. I. Oswald and Miss Venia M. Kellar for their devotion and assistance in carrying on the strenuous year's work.

### EMPLOYEES AT HEADQUARTERS—1933

| | |
|---|---|
| *THOMAS B. SYMONS | Director. |
| *E. I. OSWALD | County Agent Leader. |
| *MISS VENIA M. KELLAR | State Home Demonstration Agent. |
| *E. G. JENKINS | State Boys' Club Agent. |
| *MISS DOROTHY EMERSON | Girls' Club Agent. |
| *MISS HELEN SHELBY | Clothing Specialist. |
| *MISS MARGARET McPHEETERS | Nutrition Specialist. |
| *MISS FLORENCE MASON | District County Home Demonstration Agent. |
| †G. J. ABRAMS | Specialist in Apiculture. |
| *W. R. BALLARD | Specialist in Landscape and Vegetable Gardening. |
| H. C. BARKER | Specialist in Dairying. |
| †R. W. CARPENTER | Specialist in Agricultural Engineering. |
| O. R. CARRINGTON | Assistant Extension Editor. |
| *J. A. CONOVER | Specialist in Dairying. |

* In cooperation with U. S. Department of Agriculture.

† Part-time specialists.

| | |
|---|---|
| †E. N. CORY | Specialist in Entomology. |
| †S. H. DeVAULT | Specialist in Marketing. |
| †J. A. DICKEY | Specialist in Farm Management. |
| †CASTILLO GRAHAM | Assistant Specialist in Entomology. |
| *T. D. HOLDER | Specialist in Canning Crops. |
| *H. A. HUNTER | Specialist in Canning Crops Pathology. |
| †R. A. JEHLE | Specialist in Plant Pathology. |
| RICHARD KILBOURNE | Extension Forester. |
| G. S. LANGFORD | Specialist in Insect Control. |
| †DEVOE MEADE | Specialist in Animal Husbandry. |
| *P. E. NYSTROM | Specialist in Farm Management. |
| *F. W. OLDENBURG | Specialist in Agronomy. |
| *P. A. RAPER | Specialist in Poultry Marketing. |
| *W. H. RICE | Specialist in Poultry. |
| †C. S. RICHARDSON | Specialist in Educational Extension. |
| *S. B. SHAW | Specialist in Marketing and Chief, Maryland State Department of Markets. |
| *M. M. SHOEMAKER | Specialist in Landscape Gardening. |
| *P. W. SMITH | Specialist in Crop Statistics. |
| *A. H. SNYDER | Extension Editor. |
| †C. E. TEMPLE | Specialist in Plant Pathology. |
| *A. F. VIERHELLER | Specialist in Horticulture. |
| *C. E. WISE | Specialist in Agricultural Engineering. |
| †W. B. POSEY | Specialist in Tobacco. |
| †E. P. WALLS | Specialist in Marketing. |
| WALTER C. BEAVEN | Supervising Inspector. |

*In cooperation with U. S. Department of Agriculture.
†Part-time specialists.

## COUNTY AGENTS—1933

| County | Name | Headquarters |
|---|---|---|
| Allegany | *R. F. McHenry | Cumberland |
| Anne Arundel | *Stanley E. Day | Annapolis |
| Baltimore | *H. B. Derrick | Towson |
| Calvert | *John B. Morsell | Prince Frederick |
| Caroline | *W. H. Evans | Denton |
| Carroll | *L. C. Burns | Westminster |
| Cecil | *J. Z. Miller | Elkton |
| Charles | *P. D. Brown | La Plata |
| Dorcester | *W. R. McKnight | Cambridge |
| Frederick | *H. R. Shoemaker | Frederick |
| Garrett | *J. H. Carter | Oakland |
| Harford | *H. M. Carroll | Bel Air |
| Howard | *John W. Magruder | Ellicott City |
| Kent | *J. D. McVean | Chestertown |
| Montgomery | *O. W. Anderson | Rockville |
| Prince George's | *W. B. Posey | Upper Marlboro |
| Queen Anne's | *Kenneth Baker | Centerville |
| St. Mary's | *G. F. Wathen | Loveville |
| Somerset | *C. Z. Keller | Princess Anne |
| Talbot | *R. S. Brown | Easton |
| Washington | *M. D. Moore | Hagerstown |
| Wicomico | *J. P. Brown | Salisbury |
| Worcester | *R. T. Grant | Snow Hill |

## ASSISTANT COUNTY AGENTS

| | | |
|---|---|---|
| Allegany | *Milo S. Downey | Cumberland |
| Baltimore | *W. H. Carroll | Towson |
| Harford | *G. W. Clendaniel | Bel Air |
| Kent | *Stanley Sutton | Chestertown |
| Montgomery | *A. A. Ady | Rockville |
| Prince George's | *P. E. Clark | Upper Marlboro |

### Local Agents

| | | |
|---|---|---|
| Southern Maryland | *J. F. ARMSTRONG (Col.) | Seat Pleasant |
| Eastern Shore | *L. H. MARTIN (Col.) | Princess Anne |

*In cooperation with U. S. Department of Agriculture.

## HOME DEMONSTRATION AGENTS—1933

| County | Name | Headquarters |
|---|---|---|
| Allegany | *Maude A. Bean | Cumberland |
| Anne Arundel | *Mrs. Georgiana Linthicum | Annapolis |
| Baltimore | *Anna Trentham | Towson |
| Calvert | *Elaine Knowles | Prince Frederick |
| Caroline | *Bessie M. Svafford | Denton |
| Carroll | *Agnes Slindee | Westminster |

| | | |
|---|---|---|
| Cecil | *Priscilla B. Pancoast | Elkton |
| Charles | *Mary Graham | La Plata |
| Dorchester | *Hattie E. Brooks | Cambridge |
| Frederick | *Helen Pearson | Frederick |
| Garrett | *Margaret K. Burtis | Oakland |
| Harford | *Catherine Maurice | Bel Air |
| Howard | *Myrne L. Hendry | Ellicott City |
| Kent | *Helen M. Schillinger | Chestertown |
| Montgomery | *Edythe M. Turner | Rockville |
| Prince George's | *Ethel M. Regan | Hyattsville |
| Queen Anne's | | |
| St. Mary's | *Ethel Joy | Leonardtown |
| Somerset | *Hilda Topfer | Princess Anne |
| Talbot | *Margaret Smith | Easton |
| Washington | *Ardath E. Martin | Hagerstown |
| Wicomico | *Marian G. Swanson | Salisbury |
| Worcester | *Lucy J. Walter | Snow Hill |

### Local Home Demonstration Agents

| | | |
|---|---|---|
| Charles, St. Mary's, Prince George's and Montgomery | *Mrs. Arminta Watson Dixon | Washington, D. C. |
| Somerset | *Mrs. Justine Clark | Princess Anne |

*In cooperation with U. S. Department of Agriculture.

## Sources of Extension Revenue

DURING THE FISCAL YEAR ended June 30, 1933, there were available for Extension work the following funds: Federal Smith-Lever $60,023.83; Federal Smith-Lever Supplementary $19,202.09; Capper-Ketcham $26,076.61; Additional Federal Cooperative funds $17,000.00; State Smith-Lever $46,287.11; County Demonstration fund $65,027.60; State funds for General Extension $14,553.27; State Horticultural fund $12,554.10; Marketing Extension fund $12,756.74; Canning Extension fund $9,051.01; Poultry Extension fund $3,702.30; Dairy Extension fund $2,907.74; Tobacco fund $2,648.08; Beekeeping fund $1,197.19; State Dairymen's fund $4,785.65; Miscellaneous funds, including Advanced Registry, State Department of Forestry funds, Marketing Inspection funds, etc., $20,879.53; and $63,957.00 contributed by the various counties; or a total of $382,609.85. In addition, $23,950.24 was used for Japanese Beetle and Insect Control work, and $16,162.96 was disbursed by the U. S. Department of Agriculture; making a grand total of $422,723.05.

During the present fiscal year ending June 30, 1934, there are available: Federal Smith-Lever $60,023.83; Federal Smith-Lever Supplementary $19,202.09; Capper-Ketcham $26,076.61; Additional Federal Cooperative funds $17,000.00; State Smith-Lever $32,400.98; County Demonstration fund $46,200.00; State funds for General Extension $12,250.00; State Horticultural fund $10,080.00; Marketing Extension fund $9,800.00; Canning Extension fund $7,000.00; Poultry Extension fund $2,800.00; Dairy Extension fund $1,925.00; Tobacco fund $1,750.00; Beekeeping fund

$1,050.00; State Dairymen's fund $3,500.00, Miscellaneous funds (estimated), including Advanced Registry, State Department of Forestry funds, Marketing inspection funds, etc., $20,000.00; and $57,683.00 contributed by the various counties, or a total of $328,-741.51. In addition, there are available $17,500.00 for Japanese Beetle and Insect control work, and $12,257.25 disbursed by the U. S. Department of Agriculture, making a grand total of $358,-498.76.

## Changes in Personnel

Dr. F. B. Bomberger resigned as Consulting Specialist in Marketing June 30, 1933.

Mr. B. H. Brannon, Graduate Assistant, resigned August 15, 1933.

Mr. D. W. Hookom, Graduate Assistant and Insect Control Specialist, resigned September 7, 1933.

Mr. V. C. Howell, Graduate Assistant, resigned July 31, 1933.

Mr. I. S. Middaugh, Assistant Specialist in Rural Organization and Marketing, resigned September 30, 1933.

Prof. J. W. Sprowls, Specialist in Psychology, resigned June 30, 1933.

Mr. C. E. Prince resigned June 30, 1933.

Dr. W. T. L. Taliaferro, Farm Management Specialist, resigned September 30, 1933.

Mr. A. V. Krewatch, Assistant Specialist in Rural Electrification, was appointed July 1 in the Extension Service and was transferred to the Experiment Station October 15, 1933.

Mr. George W. Kable, Specialist in Rural Electrification, was appointed July 1, 1933 in the Extension Service.

Mr. Richard Kilbourne resigned November 21, 1933, as Extension Forester in the Extension Service.

Mr. Joseph M. Vial was appointed on November 1, 1933, to fill the vacancy made by the resignation of Mr. K. A. Clark on September 15, 1933.

Mr. Kenneth W. Baker was appointed County Agent in Queen Anne's county on November 16, 1933, to fill the vacancy caused by the resignation of E. W. Grubb which was effective on December 15, 1933.

Mrs. Adelaide Derringer, Baltimore City Home Demonstration Agent, resigned March 31, 1933.

Miss Ernestine Chubb, Assistant Home Demonstration Agent in Frederick county, resigned July 31, 1933.

## Equipment

BY VIRTUE of the reduction in our finances it was necessary to hold the purchase of equipment down to the minimum. Regular necessary supplies have been secured from time to time and some additions have been made to equipment at headquarters, including clerical equipment. It was also necessary to supply the county offices with some filing cabinets.

The supply of charts has been augmented with the splendid work done by our designer, Mr. O. R. Carrington.

## Efficiency of Workers

THERE never has been a time in the history of the Service when I could more generously report on the efficiency of individual members of the Extension Service Staff. As stated previously, the enormous amount of additional work placed on all members of the Service by virtue of emergency work and campaigns has exacted a tremendous toll from one and all. Necessarily a large number of conferences have been required for the purpose of informing our field forces concerning the details of the different campaigns, but this has been helpful in that it has afforded closer supervision and contact than heretofore. The designation of two additional supervisors for the wheat campaign has also been of assistance and I am glad to recognize the splendid service rendered by Messrs. Paul Nystrom and C. E. Wise in this field.

A very successful annual conference was held as heretofore, in January, 1933, which was helpful to all members of the force.

## Records of Office Work

TREMENDOUS PRESSURE has been imposed on our office force at headquarters, likewise in the counties. The need for complete records and statistics was more than ever present the past year.

I am pleased to report the cordial cooperation of the Federal-State Statistic service under the direction of Mr. Richard C. Ross and associates.

Under the supervision of Miss K. G. Connolly office records have been kept in ample form for meeting demands. The adjustment of our financial books has been more difficult this year than heretofore by virtue of the emergency workers, expense accounts for Agricultural Adjustment Administration and other charges made necessary through special campaigns.

During the year a total of 44,398 first-class letters was mailed from headquarters and the total pieces of mail numbered 151,741. In all, 99,970 first-class letters were sent by the Extension Service throughout the State.

## PUBLICATIONS

PROBABLY NEVER BEFORE has the dissemination of agricultural information been so vital a factor in the advancement of agriculture as during this year. In order to give the people of the State an understanding of the plans and purposes of the "New Deal" in agriculture, it was necessary to utilize every available facility and in this respect the public press and other forms of publication had an important part.

Regular publications, such as bulletins, circulars, information cards and the *Extension Service News*, were continued and, in addition, a large volume of agricultural information and news was released to the press, covering the various emergency measures, adjustment campaigns, and other phases of the new program.

**News Service**—All weekly papers in the State were supplied regularly with releases from the central office and also by the Extension representatives in the several counties. More than 250 news stories and items were sent to weekly papers from headquarters and it is safe to say that the total supplied by agents in the field greatly exceeded that number. The daily press was served by special releases and by assistance to reporters in obtaining news stories and feature articles.

Two farm papers with large circulation in Maryland were supplied with regular features and a number of special articles were furnished papers of various types.

**Illustrations**—Demand for visual instruction in the various fields of extension activities continues to increase and it was possible to make some additions to our facilities. The supply of charts and graphs was considerably augmented; a number of excellent film strips and slides were made; and some equipment in the way of projectors was added. The most forward advance in this direction was the purchase of apparatus for utilizing sound pictures. This, it is believed, is destined to become an increasingly effective method for presenting material.

It is my desire to gratefully acknowledge the valuable cooperation of Mr. Reuben Brigham, and others of the Office of Cooperative Extension Work, U. S. Department of Agriculture, in connection with visual instruction materials.

**Radio**—A regular period of broadcast each week from Station WBAL, in Baltimore, has been maintained without interruption

since December, 1931, and has become a regular feature in the program of that Station. Most of the programs are presented in the form of conversations, or interviews, between Mr. R. M. Watkins, of the Public Speaking Department, and Specialists of the Service. This form of presentation has proved both effective and popular.

With launching of the adjustment campaigns, arrangements were made with three Maryland stations to carry the regular "Farm Flashes" of the U. S. Department of Agriculture, with such localization as seemed desirable. These stations are WBAL, Baltimore; WTBO, Cumberland; and WJEJ, Hagerstown.

**Publications Issued**—During the fiscal year ended June 30, 1933, the following publications were issued: Bulletin 48, "The Trig and Trim Club," (reprint), 24 pages, 5,000 copies; Bulletin 64, "Made-Over Furniture," 24 pages, 5,000; Bulletin 65, "Tobacco Culture," 60 pages, 3,000; Bulletin 66, "Maryland Laws Relating to Weights and Measures, Apples, Agents, and Tobacco," 34 pages, 1,000; Bulletin 67, "Penalties Relating to Certain Agricultural Laws of Maryland," 20 pages, 1,000; Bulletin 68, "Pests of Ornamentals and Shade Trees," 16 pages, 2,000; Bulletin 69, "Honeybees for Orchard Pollination," 20 pages, 2,000; Circular 94, "Greenhouse Pests," 6 pages, 1,000; Circular 96, "Judging the Ornamental Garden," 24 pages, 2,000; Circular 97, "The Maryland Sweet Potato," 6 pages, 5,000; Circular 98, "Maryland Spray Calendar," 38 pages, 3,500; Circular 99, "Coldframes for Tomato Plants," 8 pages, 5,000; Circular 99-A, "Turkeys—How to Grow Healthy Poults," 12 pages, 3,000; Poultry Calendar, 26 pages, 500; Girls' Room Manual, 17 pages, 300; Farm and Home Relief leaflet, 1 page, 7,000; Eighteenth Annual Report, 92 pages, 2,000; *Extension Service News*, issued monthly, 4 pages, 4,200 copies each month.

## COUNTY DEMONSTRATION WORK

ACTIVITIES carried on in connection with crop adjustment campaigns necessitated greater change in the program of county agents than was the case with the Extension Service as a whole. It is not too much to say that the county agent was the key man in each county in carrying on the campaigns for reduction of wheat, corn and hogs, and tobacco. In addition, the agents were called upon to take an active part in efforts toward improve-

ment in conditions surrounding other crops and products, such as canning crops, poultry, dairy products, etc., under provisions of the new Farm Act.

An outline of results achieved in the adjustment campaigns is given elsewhere in this report. The excellent results attained are an evidence of the whole-hearted manner in which the county agents entered into their tasks, their untiring effort and devotion, and the confidence of their people which had been established through years of work.

In addition to the tremendous amount of work necessary in order to give all producers a thorough understanding of the proposition offered them in the various reduction campaigns, and to aid them in properly making out their applications and contracts, a host of questions arose with regard to methods of making the required adjustments. Farmers generally looked to their county agent for advice and help in working out these new problems and without the services of a well-trained man, familiar with conditions in the respective counties, the success of the entire program would have been at stake Never before has a state-wide force of extension workers, with representatives in each county, been so essential.

County agents were called upon for assistance in many other activities growing out of the changed economic situation and the need for relief of various types. Active cooperation was given the officials of the Federal Farm Credit Administration by all agents. They assisted in organizing Crop Production Loan Associations in all districts of the State and aided farmers in taking advantage of the facilities of this new credit agency. The demand by farmers for assistance in obtaining loans from the Federal Land Banks continued and increased.

Following the appointment by Governor Albert C. Ritchie of a State Debt Conciliation Committee, similar committees were formed in each county, with the county agent as secretary. The purpose of these committees was to aid farmer debtors and their creditors in arriving at a satisfactory solution in cases where their problem had become so involved that they were unable to effect a settlement. While need for efforts in this line was not as great in Maryland as in some sections, it was exceedingly valuable to those who were in need of such service.

County agents in many counties had an active part in relief activities, in some cases serving as secretary of the county relief association. They cooperated with vocational agriculture workers in Federal Emergency Relief projects, and in some counties gave much assistance in lines of work carried on under the PWA and CWA.

There were no changes in the personnel of agents or assistants during the year, other than the employment of five emergency assistants in connection with adjustment campaigns. Maryland is proud of the fact that for a number of years each county has had the benefit of a full-time county agent and there are full-time assistant agents in six of the counties. Assistant county agents devote much of their time to 4-H club work, but also assist the county agent in general activities. All counties but one have the services of a full-time home demonstration agent.

**County Programs of Work**—At the beginning of the year a program of work was outlined for each county by the county agent with the assistance of the county agent leader and specialists, and with the advice of committees representing different sections of the county and various phases of the industry. Leaders in the Farm Bureau and Grange, and also of commodity organizations in several counties, gave valuable assistance in planning the program for the year. Calendar programs were worked out carefully by all agents and their organization officials and the County Agent Leader.

Notwithstanding the fact that yearly programs, and particularly the calendar programs, could not be followed as closely as in former years because of crop adjustment campaigns and other activities which developed, the reports of county agents show excellent progress in the established lines of work.

**Farm Management and Records**—Even before the national adjustment programs were launched, the need for greater attention to farm management and for sufficient records to plan intelligently was recognized and this phase of work was given prominence in the county programs. Simple but adequate farm record books were furnished a number of farmers in each county and assistance was given them in keeping their accounts. These records were analyzed and served as a basis for improvements in methods of management, not only for those who kept records but also for recommendations to those with similar conditions in the county.

The need for keeping records by farmers generally has been greatly intensified by the adjustment programs and the start already made will serve as a basis for greatly expanding the work in this line.

**Marketing**—Various phases of the problem of marketing farm products were live issues in the several counties and the county agents were active leaders in many activities.

Passage by the last Legislature of a law pertaining to marketing cantaloupes made necessary a great many demonstrations for the purpose of giving growers an understanding of its provisions and a knowledge of the best times and conditions for marketing this product.

Another Act of the Legislature provided for selling Maryland tobacco on the basis of established grades. In order to formulate most satisfactory grades, it was necessary to assemble several hundred samples of tobacco and, after the set of grades had been established by Federal and State authorities, schools of instruction and demonstrations were held for the benefit of growers.

The usual support and assistance were given to all marketing organizations. Meetings were called by county agents in the several counties, when occasion demanded, to discuss various phases of the cooperative movement and specific problems confronting the particular organization.

There was more than usual development in roadside marketing and sales through community markets for farm and home products. Much assistance was given with regard to maintaining high quality products and desirable methods.

**Tax Information**—Interest in matters pertaining to expenditure of public funds and possible reduction of the tax burden, especially on real estate, was very live during the early part of the year and there was need for accurate information regarding the tax situation by people generally. In many of the counties the county agents rendered a real service by assembling data and assisting in giving a fair presentation of the information desired.

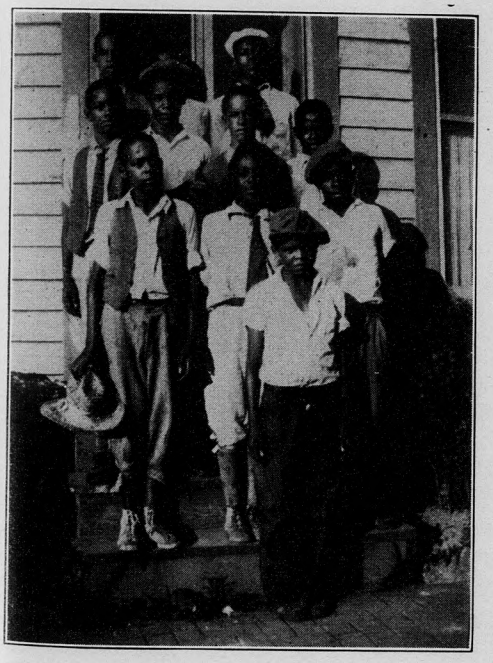
**Fairs, Pageants, and Community Exhibits**—As in former years, practically every county held one or more exhibits of some sort and the county agent had a major role in planning and conducting it. These varied widely in nature, ranging from a com-

paratively small local or community exhibit of products to exhibits for county and state fairs and rather elaborate pageants. Especially notable was the pageant presented at the Charles County Fair under the caption "The Magic Weed,"—which depicted the importance of tobacco in the history and economy of Southern Maryland.

In cooperation with other agencies, the county agents assisted in arranging a tour of Maryland farm people to the "Century of Progress" in Chicago.

## Negro Work

FOUR NEGRO WORKERS were maintained—two men and two women. A local agent and local home demonstration agent serve the five Southern Maryland Counties and the local agents on the Eastern Shore carry on most of their work in Somerset and Wicomico counties. The majority of the colored population of the State is found in these two sections. In sections where no colored workers were maintained, the white agents have given a limited amount of service.



*Excellent work was done by members of Negro 4-H clubs. This group is gathered at the local agent's office in Southern Maryland.*

Lines of work carried on were similar to those conducted with the white people. Local agents conducted demonstrations along lines approved by the Extension Service and as outlined by the County Agent leader. Farmers' institutes and short courses were held on a county - wide basis at which topics of special interest to colored people were discussed by local agents and

subject matter specialists. Particular commendation is due the colored people for the results obtained in welfare and emergency work, especially in the line of producing and saving a larger percentage of the food supply through gardens, poultry, and the like.

4-H club work is a very important phase of activities among colored people and much excellent work was done by the boys and girls in their clubs. Gardening was one of the most important projects during the year.

## HOME DEMONSTRATION WORK

ACTIVITIES in the Home Demonstration field this year were directed largely to assisting the rural family in the home to meet the present economic situation. Due to lower incomes, every phase of home making has undergone some change; sacrifices and adjustments have affected the entire family. Home-makers and the Extension staff have worked together with a clear understanding of the problems and the help that was most needed from the Service.

A "Live-at-Home" program emphasizing the need for larger family gardens, more food preservation, dairy products, and home meat supply solved the problem of proper nutrition with low incomes. Renovation of clothing and keeping clothing accounts helped to dress the family on a minimum amount. Through a program of "Mrs. Consumer and Her Buying Standards," the home-maker studied and compared values in her household buying, with the result that she knew what she should receive for the small amount she had to spend and used it most advantageously—whether it was for food, clothing, or home equipment.

The program for 1933 was determined by certain economic facts, such as—1. Uncertain income for farm families; 2. Debts, taxes, and other obligations to be met with low-priced products; 3. Many family households increased by children returning home, or care of additional relatives; 4. Less money for recreation and other social activities. These facts were determined by surveys, home accounts, personal interviews, observations and assistance of teachers and other county workers.

The work of the regular staff is greatly augmented by project demonstrators. These volunteer workers are rendering most

valuable service by giving assistance with demonstrations, programs, and making new contacts. Training schools in subject matter for the demonstrators are conducted by agents and specialists. The influence of these leaders spreads far beyond their own homes and communities.

The organization for carrying on this work consists of a State staff of five members, twenty-two home demonstration agents, and two Negro home demonstration agents. Twenty-one counties held 493 training schools for 1,310 project demonstrators and 4-H local leaders. These demonstrators and leaders held 1,295 meetings with an attendance of 32,735 (not including colored).

***Prior to the landscaping done by this Baltimore County woman, this was just "another back yard."***

**Projects**—Foods and nutrition work with the unemployed was in great demand. Agents and project demonstrators cooperated with county welfare workers in giving aid. Coat schools were the most important feature in the clothing project. Sixteen counties continued in the Flower Garden project. District and county flower shows stimulate interest for future work, and tours to homes that have made outstanding progress in this project were very helpful.

Special projects, such as music and recreation, increased in number. Six county-wide choruses met regularly with trained leaders. Two counties gave public concerts with choruses. One

county has a county-wide recreational organization that meets regularly once a month. Three counties held four-day recreational schools under direction of a trained leader from the National Recreation Association.

**Achievement Days**—Fifty-eight (53 white and 5 colored) achievement days for adult work were held in 20 counties. Many clubs held local achievement days, exhibiting canned products and clothing made as a result of Extension help. In addition, all counties held from two to four special county or district meetings. At these meetings, demonstrations were given in food preservation, special work in clothing, chair caning, hooked rugs, music appreciation, public speaking, and parliamentary law.

**Community Activities**—Home demonstration agents cooperate in community work with all existing county organizations, such as the Grange, Farm Bureau, and community organizations.

**Emergency Activities**—Many emergency measures required the attention and services of the agents. They were called upon by the Red Cross to assist in distribution of food, clothing and garden seed. They helped at all emergency canning centers that were organized by welfare agencies to can food for unemployed.

In November, three counties were selected for a Rural Housing Survey conducted by the Bureau of Home Economics as one project under the Civil Works Administration. This work is well-organized and making excellent progress at the end of the year.

**College Week for Women**—The Extension Service, in cooperation with the University of Maryland, sponsors an annual Rural Women's Short Course, which is held the third week in June. About 500 women representing all counties in the State attended this Course in 1933. The program is diversified so as to meet the needs of all women and, through its lectures and demonstrations in home economics and cultural subjects, it gives help and inspiration that cannot be measured. The course offers to all women an opportunity for help in adult education and also the inspiration that comes from spending a week on the campus of their State University.

**Farm Women's Markets**—Seven farm women's markets located in seven counties, have proved a source of substantial income to a large number of farm women. Excellent home products are found at these markets and a high standard of quality

is maintained. Constant attention is given by the agents and nutrition specialist, so that only high quality products are sold. The markets are open for business from one to three days a week. One market that was in operation the entire year had gross sales of almost $100,000.

In addition to those who sell through organized markets, hundreds of farm women are selling privately to more or less regular customers and are deriving an income that helps materially in meeting the family budget.

**Negro Home Demonstration Work**—Two Negro home demonstration agents are employed to work in two counties in Southern Maryland and two counties on the Eastern Shore.

Projects with colored people were planned around home and living conditions. Special work was given on vegetable gardening and food preservation.

The two workers reached with project work 1,979 homes through women's and girls' work.

Two Short Courses were held at the Princess Anne Academy—one for 4-H club girls and one for home-makers.

## CLOTHING

THE PRIMARY OBJECT of adult clothing projects was to help farm families maintain good standards of dress on limited incomes through better buying practices and better utilization of clothing on hand.

Developments in the textile and clothing industries made it necessary for purchasers to have more information on conditions under which wearing apparel is produced and on the wearing qualities of the different grades. For this reason, the projects stressed studies of factors involved in buying clothing for the family, with the purpose of getting better style and more satisfactory service for the money invested.

**Clothing Budgets and Records**—To encourage putting the second largest item of family expenditure on a more business-like basis, the Extension Service provided blanks to be used in keeping records of the amounts spent for clothing. Such records were kept by 671 families, and 426 families representing 1,461 individuals,

sent their records to the office to be summarized. These families consider their records valuable in making plans for future expenditures and in estimating the wisdom of past purchases. According to records of the last four years, clothing budgets have been cut drastically.

The Extension Service assisted farm families with their economy program by holding coat-making and remodeling schools, better practices in home sewing, and care and cleaning of all types of clothing.

*Winners of the Style Show held by 4-H Club girls during annual Club Week at the University. Front row (left to right)—Henrietta Bowers, cotton school dress; Naomi Shoemaker, sports outfit; Elizabeth Roop, afternoon dress. Back row—Margaret Sparklin, informal party dress, and Florence Thompson, made-over dress. The sports outfit made and worn by Naomi Shoemaker won the grand prize in the Style Dress Revue held at the National Boys' and Girls' 4-H Club Congress in Chicago.*

**Economy in Buying**—Expenditure for shoes represents 27.6 per cent of the entire clothing budget. During the year, 17 counties made studies of better buying practices. As a result 1,914 individuals were able to change to more satisfactory size or style of shoes and 1,619 made changes in size or durability of hose.

While coats, suits and dresses represented 51.3 per cent of the clothing expenditures, the total amount or average amount per individual was very low. So far as women's and girls' clothes are concerned, this low expenditure may be accounted for by making clothes at home. There has been a decided increase in home sewing, with many women unaccustomed to making coats and better dresses turning to this means of economy. As a result of coat-making and remodeling schools alone, 1,302 coats were reported. At an estimated saving of $5.00 each, which is very low when the number of new coats for adults is considered, the total saving would amount to $6,510.

## FOODS AND NUTRITION

WORK IN FOODS and nutrition this year was closely related to the Federal and State emergency relief work. It was designed to help farm women produce their living from their farms, to prepare low-cost diets, and to preserve food for the unemployed. There never was a keener interest shown by farm women of Maryland in planning ahead their yearly food supplies, or in putting forth greater effort to produce adequate gardens and provide better storage. There was greater demand for assistance in methods of preserving all kinds of food products produced on the farm and for turning these products into cash.

More than 12,000 farm women were contacted directly and helped through club meetings, home visits or telephone calls, and numerous others were reached indirectly through circular letters, news articles, and influence of club women. More than 3,000 definitely reported planning, producing and preserving the required yearly food supplies for their families and improved buying practices. Many of these for the first time kept records of their food expenditures and are trying to evaluate their farm products in terms of money.

Because money for food is scarce, more home-makers are especially careful to spend it wisely. They are more concerned about low-cost diets and how to prepare well the foods that are low in money value, but high in food value.

More than 1,000 Maryland farm women report that they have this year put forth special efforts to add cash to the family income by producing standard products and selling on markets, or to private customers. Records show $142,010.66 that was added to family incomes by these women.

More than 1,000 home-makers report that they have, with little or no expenditure, made their kitchens more convenient and have improved their buying practices in selecting and buying kitchen equipment.

The outlook for the coming year is a still keener interest in utilizing to best advantage all forces that will help farm home-makers to do their part to bring conditions back to normal and not lower the standards of living.

***A typical scene from the new Extension Service film strip, "The Smith Family Lives at Home." This family is making plans for reducing expenditures by starting food and garden records.***

## HOME FURNISHING

MORE THAN USUAL INTEREST was shown in this line of work, due to lack of available funds to purchase new furnishings and the general desire to keep the home looking neat and attractive. To meet this demand, demonstrations in several phases of home furnishing were planned especially to fit the general program and situation of farm people.

**Textiles**—Three demonstrations covering textiles used in the household were in greatest demand. These included points on buying bed linens and blankets and a similar demonstration on buying table linens and towels. The third dealt with other forms and kinds of textiles used in home furnishing.

These demonstrations were given in 18 counties. Records show that 1,176 women reported one or more improved practice in buying towels, table linens, and other phases of buying textiles for household use.

**Furniture**—Work in this line covered a wide variety of interests and included a large number of the practical means whereby more serviceable and attractive furniture may be provided with small outlay of money. In addition to demonstrations of many points in making over and refinishing furniture, it included the construction details which a buyer should know in order to purchase to best advantage. Help in chair caning proved very popular and was the basis of many demonstrations.

Making over furniture consisted of re-designing for new purposes and for improvement in style, line and finish both discarded pieces and those that were in use. Records were received of 249 large pieces that were made over, and 765 chairs and stools that were refinished and reseated. At the lowest average price for these repairs in rural communities, the total value of the work would be more than $4,000.

**Special Needs**—In order to meet certain specialized needs in home furnishing, schools were held in four phases of the project. These included instruction in buying bedding for comfort and service, making slip covers, re-upholstering furniture, and making hooked rugs.

The making of slip covers served two needs—first, to restyle badly worn chairs by providing new interest in design, color and

texture; and, second, a means for restoring to use at low cost chairs so badly worn that they had been discarded. As a result of the demonstrations, 475 slip covers were made. Estimating the cost of having a slip cover made at $4.00, the women saved $1,900 by making their own, in addition to the value and satisfaction in having the chairs restored to use.

One hundred and thirteen pieces of furniture were re-upholstered, each piece being completely dismantled and repaired, if needed. Estimating the value of the work on each piece at $5.00, the women saved $565 by being able to do the work themselves.

## GIRLS' 4-H CLUB WORK

PROBLEMS brought about by stress of the times tend to make rural people more eager for and interested in 4-H club work than ever before. Parents and children alike are realizing that the 4-H club brings the University to their homes. Many girls who had looked forward to the opportunities of advanced schooling and to becoming self-supporting are finding the 4-H club program the open door to progress.

Older girls are enrolling in Junior Extension groups. These young people, many of whom are former 4-H club members, are helping the younger groups to advance. Their own study programs are preparing them for active citizenship and meeting their present need for recreation.

**Clothing**—As always, this work seemed of first importance. Made-over clothes, the girls are learning, can be designed and constructed to give the wearer a feeling of self-respect and poise. Hundreds of garments come to 4-H girls because people realize that they will be handled carefully and remodeled intelligently.

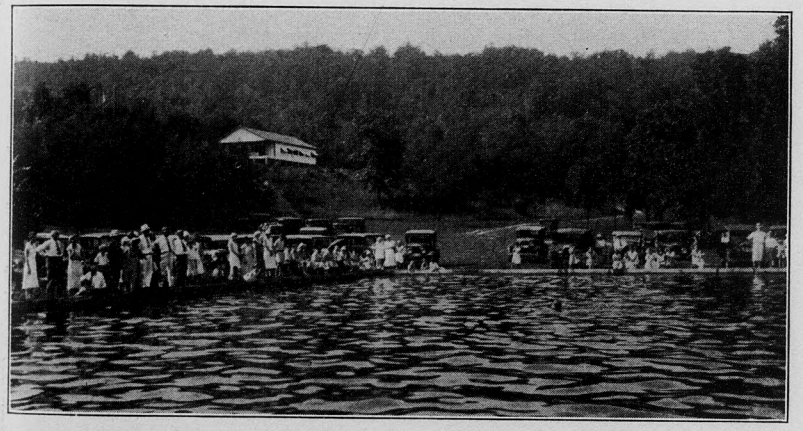
Care of clothing is no longer a burden, but an art to be achieved with pride, and keeping a clothing budget is becoming an interesting study. Standards of workmanship, it is found, are not lowered, but raised, under the limited budgets at hand. A Maryland girl placed first in the National Style Revue, wearing garments that she made herself in a 4-H club. The cotton dress exhibit placed third and the childrens' garments fifth in the National Exhibit.

The 4-H girls have not thought of themselves only, but have given freely of their time and talent to help those who at present

seem to be in greater need. County reports include many accounts of sewing done for the Red Cross, of garments collected and money raised for charitable organizations.

**Foods and Nutrition**—Interest in this line was greater than in many years. Not a few girls are reported as doing all the home work and cooking for large families. Some groups and individuals made money with their baking and preserved products.

The Foods program is helping many homes with the school lunch problem. In two counties, cooperating with the Red Cross organization, a number of schools are still carrying on the 4-H hot lunch plan started two years ago.



*Life at a typical Maryland 4-H Club camp. This one is in Harford County and shows the swimming pool and "chow" house.*

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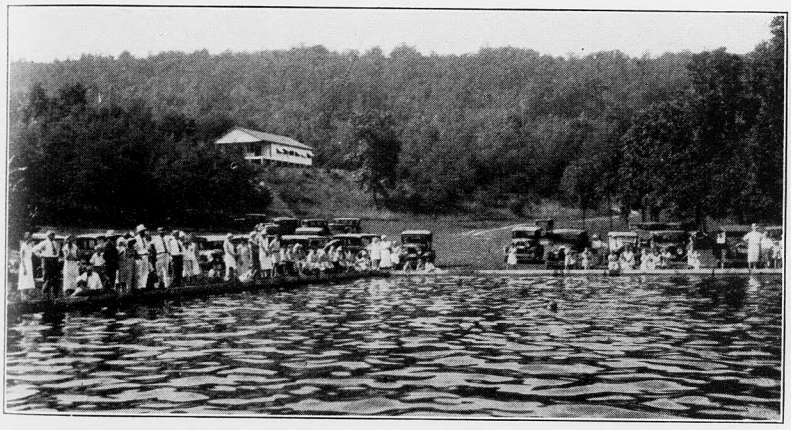


*Life at a typical Maryland 4-H Club camp. This one is in Harford County and shows the swimming pool and "chow" house.*

Food preservation, always an active club project, reached more girls and homes this year. More girls raised their own vegetable gardens and that added to the interest. Reports show clearly that the gardens meant better health and, in some cases, the safety zone separating them from the county relief list.

The canning sent to contests in Chicago brought back $253.00 in awards, the Allegany Trail Exhibit of 12 jars placing first and winning $100.

**Other Activities**—An arrangement whereby club girls might make small beginnings in poultry work brought fine results. Where least expected, a girl often becomes interested enough to build up a flock of her own—looking toward earning a living or going to to school. Several are finding the proceeds from their poultry are paying for their clothing needs.

Community activities of 4-H members and adults cannot be separated in most cases and that in itself is a sign of progress. They are having their parties, simple suppers, recreation nights, and flower shows together as community affairs.

More recognition than ever before must be accorded local leaders. With the continued help of these local leaders and more training schools provided for them, we may hope for continued progress.

***A few of the more than sixty 4-H Club delegates at the annual "All Star" conference, held at the University of Maryland.***

## BOYS' 4-H CLUB WORK

ENROLLMENT IN BOYS' 4-H CLUBS increased notwithstanding the fact that supervision in the counties was somewhat reduced by the extra work placed upon agents in connection with crop adjustment campaigns. The following figures show the gradual, but constant, increase which has taken place in the last seven years:

| | 1933 | 1932 | 1931 | 1930 | 1929 | 1928 | 1927 |
|---|---|---|---|---|---|---|---|
| Members enrolled.... | 4,317 | 4,037 | 3,738 | 3,387 | 2,752 | 2,625 | 2,211 |

It is significant that active membership has increased, practically doubled, during the years of economic depression.

Each club member does some definite farm project work. Despite the fact that the most destructive storm in many years practically wiped out crops and gardens in some sections of the State, 86 per cent of the white and 78 per cent of the Negro club members completed their projects.

According to reports of county agents, 3,611 boys and girls completed 3,920 different projects worth approximately $223,000 at farm prices. This is an average value per club member of $62.00. The average value for white club members was $67.00, and $44.00 for Negro members.

Two factors apparently contributed to success of this work during the year. First, there appears to be a much stronger determination to make good—a new seriousness. Probably this is due, at least in part, to less distractions than in more prosperous times. The second important factor in holding boys and girls in project work seems to be an increasing interest manifested by older and former club youth and more active leadership by them and by other adults.

**Projects**—While 4-H club projects carried on during this year were not yet definitely planned to meet in any considerable degree the changed conditions, there was far less emphasis on competition and far more on cooperation.

Some excellent work with seed potatoes in Garrett and Prince George's counties is reported. In Garrett county, 90 boys produced 25,000 bushels of seed potatoes, practically all certified, and 85 other boys raised 3,578 bushels. It has been asserted that the

large increase in production of seed potatoes in this county in recent years is a direct result of 4-H club work.

It is estimated that 823 boys with 323 acres of home gardens produced upwards of $20,000 worth of food. This was one of the most encouraging achievements of the year. In spite of the worst storms in the history of certain sections, there was a 42 per cent increase over 1932 in number of youths raising gardens, and a 333 per cent increase since 1928. In addition, 52 boys raised 41 acres of market garden and canning crops.

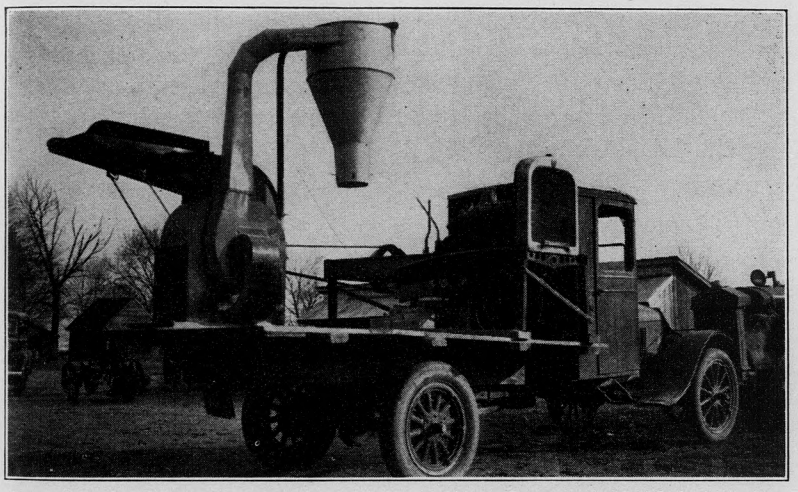
*Gardens were popula. projects with 4-H Club boys. The estimated value of their gardens at prevailing prices was $38,645. In the above picture, the local leader is describing a diseased potato plant to the members.*

Tobacco to the amount of 84,725 pounds was raised by 142 white boys and nine Negro boys raised 20,800 pounds.

The following table gives a summary of demonstrations completed, and a comparison with last year:

| | 1932 | 1933 | | 1932 | 1933 |
|---|---|---|---|---|---|
| Dairy | 792 | 764 | Home Gardens | 433 | 518 |
| Poultry | 677 | 690 | Tobacco | 129 | 142 |
| Swine | 320 | 294 | Irish Potatoes | 129 | 130 |
| Rabbits | 87 | 103 | Market Gardens | 96 | 52 |
| Beef Cattle | 20 | 19 | Corn | 55 | 20 |
| Sheep | 20 | 17 | | | |

**Educational and Inspirational Activities**—In addition to the many activities carried on within the several counties, there were a number which were state-wide or sectional in extent. Among these was the annual 4-H club week at the University; the contests and meetings at the Timonium Fair; the State Poultry judging contest; the National 4-H Club Camp; a club leaders' conference held in connection with meetings of the Maryland Agricultural Society and associated organizations; and activities sponsored by the Baltimore Kiwanis Club and Maryland Bankers' Association.



***Portable feed grinder constructed by a Kent County 4-H Club member. It gave him a fine profit from grinding feed for neighboring dairymen.***

**Senior 4-H Club Groups and County Councils**—Considerable attention was given to the problem of youth after passing the age for 4-H club work and some definite progress was made. There are now senior 4-H clubs functioning in nine counties and efforts are being devoted to provide them with helpful material and assistance in planning constructive programs of work.

**Negro Club Work**—A "live-at-home" program is emphasized by Negro agents and club work is a large factor in that program. Gardens, poultry, swine, and clean-up campaigns were important projects. Last winter, it was reported that not one family in 26 communities asked help from organized charities because they had, under Extension Service supervision, provided sufficiently for all needs. This is nearly true of their situation at the beginning of this winter, although many late gardens were destroyed by storms.

## AGRONOMY

SPECIAL EFFORT to increase the production of home-grown feeds, particularly alfalfa, was continued. The plan includes taking samples of each field, both of top-soil and sub-soil, and testing these samples for lime needs and also for their condition as to phosphorus and potash. During the year tests and recommendations were made for 375 fields and gardens on 215 farms. Alfalfa questions involved 2,367 acres, either from old fields or fields that were to be seeded in alfalfa in 1933, or later. Samples from 3,862 acres were tested in connection with questions pertaining to other legumes or pastures. County agents conducted 215 result demonstrations with alfalfa, having a total of 2,814 acres.

The total acreage of alfalfa in the State increased from 30,000 to 34,000 acres during the year. It has made a gain of 14,000 acres in the last four years.

Progress in the work with other legumes is shown in the following table:

| Crops | No. of Result Demonstrations | No. of Acres | No. of Counties |
|---|---|---|---|
| Sweet Clover | 42 | 338 | 7 |
| Soybeans | 69 | 721 | 10 |
| Cowpeas | 65 | 446 | 7 |
| Clover and Hay | 28 | 247 | 8 |
| Vetch | 80 | 651 | 4 |
| Lespedeza | 139 | 820 | 16 |
| Pasture | 41 | 630 | 12 |

**Wheat**—The major activity in connection with wheat was the campaign for reduction of production carried on throughout the State and referred to elsewhere in this report. Although there was not as great call for seed certification as in some years, the demand for good seed was so large that both those whose seed was certified and those who were on the list as having good seed were sold out before planting time.

**Barley**—This crop has become an important factor in the problem of growing more home-grown feed. From an acreage of 4,000 acres ten years ago, it has progressed to 12,000 acres in 1930 and 23,000 acres in 1933.

**Corn and Oats**—Work with these crops continued along lines similar to those of recent years, being focused principally upon lowering the cost of production by use of better adapted varieties, seed of higher quality, and improved cultural practices.

## ANIMAL HUSBANDRY

INTEREST IN THE LIVESTOCK INDUSTRY continued active in spite of the fact that conditions during the year were not favorable for most branches. Price levels remained very low and credit for normal operations was not readily available. It was necessary, however, for Extension workers to deal with the usual problems and also some rather unusual conditions. Among the latter, the most important was an outbreak of a disease of horses which became quite serious and caused heavy loss in some sections of the State. By supplying farmers with information relative to the methods of care and management of their horses whereby the danger of contracting the disease would be reduced to a minimum, the loss was much less than it would have been otherwise.

**Sheep**—For the eighth successive year the purebred ram sales were an important factor in development of the sheep industry. Five sales were held in as many sections of the State and 95 purebred rams were sold for an average of $19.21 a head. These sales are sponsored jointly by the Extension Service and the Maryland Stockmen's Association. During the time they have been held, 543 rams have been sold and placed in the hands of sheepmen in Maryland and nearby sections. It is safe to say that the county agents and purebred breeders in the State were instrumental in placing an additional 300 or 400 rams in the hands of flock owners. This activity has resulted in a marked improvement in our flocks.

Much work was also carried on along the lines of breeding, feeding, management, docking and castrating lambs, shearing, trimming for show and sale, parasite control and various phases of the marketing problem.

**Swine**—The 1933 Maryland Litter Contest had five entries, two of which reached the required weight of 1,500 pounds in 150 days. It is probable that the small number of entries this year was due to lack of enthusiasm in hog production because of low prices. The winning litter was produced by Edgar M. Palmer, Harford county, and consisted of 11 pigs which weighed 1,625 pounds in 150 days. A litter of 8 pigs, produced by Sterling H. Little, Carroll county, made a weight of 1,500 pounds in 150 days. The Maryland Stockmen's Association and the Wm. Schluderberg-T. J. Kurdle Company cooperate in this contest.

Particular attention was given to methods for providing a larger percentage of the home meat supply through the medium of farm-cured pork.

**Beef Cattle**—Conditions were not conducive to outstanding development in this field, but interest continued live in the improvement of herds. The establishment of beef cow herds proceeded at a less rapid rate than during the last few years. Activities in the line of efficient production and marketing were of more than usual value.

**Horses**—A distinct revival of interest in horse breeding was evident and the sentiment prevails that this phase of the live-

***The growth of interest in horses was an important development of the year.***

stock industry affords a more encouraging outlook than in several years.

**Marketing**—This year was the first full year of operation for the Eastern Cooperative Livestock Producers' Association, which opened for business at the Baltimore Union Stock Yards on August 1, 1932. The Extension Service, in cooperation with other agencies, devoted a great deal of effort to formulating plans and other work incident to launching this enterprise. Notwithstanding the adverse conditions under which it has operated, its record thus far is gratifying and it is offering the livestock producers of the State a valuable service.

For the fifth year the Baltimore Livestock Show was a distinct success and the Extension Service is proud of the part it has had in the development of this important project from its beginning. It is especially gratifying to note the high awards made to some of the Maryland entries, as an evidence of the excellence of stock grown in our State. For the second consecutive year, an Angus steer exhibited by Fox Hill Farm, Fallston, Maryland, was awarded grand championship. A trio of fat steers from the same farm were declared grand champions in their class. Other grand championships awarded to Maryland stock included a carload of fat lambs from Dorsey Hall Farm, Howard county, and a carload of fat hogs from Pioneer Point Farm, Queen Anne's county.

The Baltimore Show and the sale accompanying it gives an excellent demonstration of the high quality stock that can be produced in Maryland and the prices that will be paid for good quality.

## HORTICULTURE

UNDER CONDITIONS such as the fruit industry has experienced in the last few years, Extension work in horticulture was planned along lines designed to promote higher production of better quality fruit, which means less total production through reducing the lower and unprofitable grades.

***Members of the Maryland State Horticultural Society at the home of A. H. Nofsinger during their annual tour.***

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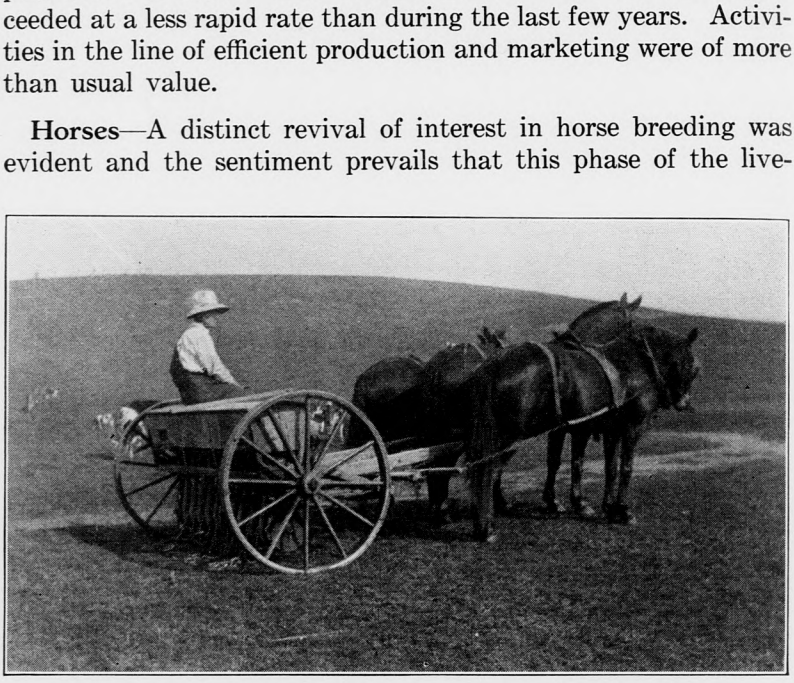

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With the average fruit grower entering the year with impaired credit and lack of capital, it was the aim to encourage economy of orchard expense, yet to prevent false economy. Along cultural lines, less orchard cultivation, utilization of natural or "wild" cover crops, economical use of fertilizer, better pruning, consistent thinning of fruit, and thorough spraying were advocated.

These aims were carried out largely through orchard demonstrations and personal visits with orchardists. The demonstrations included pruning, orchard management, and fruit thinning. The latter practice, which has been advocated by the specialist for a number of years, was followed during the past year by many growers for the first time. With a failure to control pests, this was the growers' only final resort for a crop of salable fruit.

Removal of unprofitable trees was urged and, while no accurate figures are available, it is estimated that several thousand trees were destroyed and thousands more will be cut down this winter.

The year was marked by cool, wet weather at pollination time and light bloom on some varieties, which resulted in a decreased set of fruit, an unusually serious outbreak of scab, aphis, and codling moth on apples, and brown rot of peaches. A severe storm damaged apples and almost destroyed peaches in some sections.

The pack-out of U. S. No. 1 fruit in the United States was the lowest on record, due to general prevalence of unfavorable conditions, and the market outlet, at first sluggish, settled down to a steady demand and a fair price.

## ORNAMENTAL AND VEGETABLE GARDENING

DEMAND FOR ASSISTANCE has increased constantly during the last three years. The number of requests for aid in 1933 was about 16 per cent greater than in 1932. There is abundant evidence that people in general have greatly increased their interest in ornamental gardening during the period of depression. Many who have found the cost of vacation trips prohibitive have devoted their leisure to ornamental gardening, with great enjoyment and profit. To others, gardening has been a source of mental relief during periods of unemployment or financial strain.

The present economic situation multiplies the necessity for making rural life as attractive and desirable as possible. Attrac-

tive and efficiently arranged grounds of farmstead, home, school, playground, and church can do much to make content the fixed rural population and those also who, from economic necessity, are joining the present movement from urban centers to the rural districts. Rural planning in its many phases is becoming of great economic importance and in the future will demand the united efforts of many workers in the formulation of plans for proper guidance and control of land use, rural housing, and other forms of rural development.

We hear much of the "new leisure." It is important that helpful guidance be given toward worthwhile use of that leisure. Those who do not turn to sports or self-education may desire to pursue some hobby. Ornamental gardening promises to become one of the most important of these hobbies; it is not only pleasurable, healthful and educational, but there is financial reward, as well, in increased value resulting from property improvement.

**Landscape Plans and Advice**—Every effort was made to keep up with the increased demand for practical assistance. Requests for definite aid numbered 196, and included practically all kinds of property improvement. Many were of such character that it was necessary to prepare definite plans in order to give adequate assistance, 90 such plans being made. Among these were 28 school grounds, 141 farmsteads or home grounds, 2 parks, 5 churches, and 2 court houses. Plans were completed for development of a 300-acre park in Hagerstown. It is planned to give unemployed relief through construction work in this park.

**Unemployment Relief**—Considerable demand was made on the time of the specialists in preparation of plans and programs for C. W. A. projects. This work embraced principally school properties and parks.

**Flower Growing Project**—Most of the counties taking the Flower Growing Project have completed the three years' course as outlined. The interest has been sustained despite serious drawbacks and insistent demands have been made for a continuing project. The specialist has devised a "Merit System for Home Grounds Improvement," which divides the development into ten phases. Upon completion of any part of the plan, the cooperator will receive a certificate; to this will be attached seals as other phases are completed.

**Vegetable Gardening**—Demonstrations of growing market peas were conducted on a limited scale in the cool climate of Garrett County. It is believed that results are sufficiently promising to justify enlarging the project to a commercial scale.

The Baltimore Relief Committee was assisted in developing its plan for Subsistence Gardens.

## DAIRY HUSBANDRY

IN ADDITION to the lines of dairy Extension work carried on in former years, it has been necessary to deal with a great many new problems arising from the present situation in the dairy industry and new approaches to these problems. Early in the year, attempts were made by the dairy interests of the State to work out satisfactory marketing agreements for the three markets to which the major part of Maryland dairymen send their milk. Much time and effort were given to assembling and analyzing data on all phases of the dairy situation and in attending numerous conferences. The matter of marketing dairy products was a live issue during practically the entire year and all assistance possible was given the dairy industry in its attempts to solve the new problems confronting it.

Lower prices for their product have made economy of production more vital than before and work in this line was emphasized. This work focused principally upon economy in feeding and management and the use of individual animals of known and profitable production.

**Purebred Sires**—Assistance was given in promoting and holding nine breed field days. Principles of breeding were explained at a large number of meetings held in connection with purebred sire work.

A demonstration started in one county in 1930 is now showing striking results. Seven purebred bulls from the U. S. Bureau of Animal Industry Experiment Farm at Beltsville, Md., were placed in Garrett county in a cooperative breeding project. Eighty heifers have been retained from this breeding and the oldest are just coming into production. Records are being kept on dams and daughters.

**Herd Improvement Work**—Interest in this work continues to grow and there was a small increase in the membership of herd

improvement associations. The necessity for watching more closely the cost of production by individual animals has emphasized the need for adequate records.

A vast amount of forceful data is obtained from this work. Two thousand and nine cows completed records for the year. The cost of feed was considerably reduced from that of last year, as was also the income above feed cost. One cow that produced 500 pounds of fat returned as much above feed cost as seven cows each producing 100 pounds of fat.

Fifteen bulls were proven through the work of the herd improvement associations.

**Marketing**—More demand was made for assistance in marketing than in any previous year, in addition to work in connection with the agreements referred to above. Problems associated with improvement of quality were given prominence by conditions and received more than usual interest. There was also great interest in demonstrations along the line of making butter and cottage cheese for farm women's and roadside markets.

**4-H Calf Club Work**—In spite of the additional work incident to carrying out various AAA programs, it was possible to maintain the high standard of interest in and development of dairy judging teams. Although there was no national competition as an incentive, 15 counties sent well trained teams to the State contest at the Timonium Fair.

**Advanced Registry Testing**—In spite of financial conditions, Advanced Registry Testing held up especially well. A gradual tendency is evident in all breeds except Guernseys for breeders to turn to the Herd Improvement testing. This is due to the fact that by this method of mass testing the expense is considerably less.

Records show that the number of breeders doing testing has decreased only 8.9 per cent and the number of cows on test was only four less than in 1932. Ayrshire testing showed an increase of 84.7 per cent in number of cows. This is the largest increase of any of the breeds and is due to the fact that Ayrshire breeders have done comparatively little testing heretofore. Guernseys show one less breeders doing testing and 11 per cent more cows on test than in 1932. There were three less Holstein breeders testing, but only 3.9 per cent less cows on test than last year. The number of

Jersey breeders decreased by one and the number of cows on test by 8.9 per cent.

The average number of herds tested per month during the year was 37 with an average of 519 cows. Check tests and automatic retests were practically the same as in 1932.

Results of this work give evidence of the fact that dairymen appreciate the importance of maintaining and improving the high quality and efficiency of their herds to as great extent as their financial situation permits.

## MARKETING

THE EXTENSION SERVICE, through its Department of Markets, has dealt with a wide variety of problems. Some of these were similar to those encountered in former years and some were the outcome of radically changed conditions and entirely new in character. The new approach to the agricultural situation had a direct bearing upon marketing of most farm commodities and necessitated considerable adjustment in marketing activities.

**Cooperative Marketing**—All of the cooperative marketing associations operating in Maryland continued to function and render valuable service to their members, but there was no distinct growth in the way of new associations. The three milk marketing associations—the Maryland State Dairymen's Association, the Maryland-Virginia Milk Producers' Association, and the Inter-State Milk Producers' Association—were confronted with many complicated problems in connection with development of marketing agreements under the Agricultural Adjustment Administration. The Maryland Tobacco Growers' Association encountered great difficulty in disposing of some of the lower grades of tobacco and devoted much time to working out a plan for adjustment of tobacco production, with a view to stabilizing the market for this important product. The campaign for putting into effect the plan adopted is referred to elsewhere in this report.

The State Wool Pool, the Maryland Agricultural Corporation, and organizations for marketing eggs cooperatively, continued to function actively and in the latter case there was considerable expansion.

**Grading and Standardization**—The demand for assistance in grading and packing, and certification as to grade and quality

increases constantly. Service along these lines was furnished growers of a wide variety of farm products.

In cooperation with the Maryland Egg Producers, Inc., operating grading stations at District Heights and Baltimore, and also with the Purity Creamery Company of Baltimore, 119,794 dozens of eggs were inspected and certified for 42 producers.

In accordance with regulations of the Poultry Certification Board, and in cooperation with the Livestock Sanitary Service, 31,574 birds from 167 flocks were inspected, certified and banded.

***Methods followed in Federal-State inspection of eggs were shown at the Baltimore Food Show by an exhibit of the Maryland State Department of Markets and the U. S. Department of Agriculture. Space was furnished by the Purity Creamery Company.***

Products graded and certified included: Early potatoes, 254,180 bushels; cucumbers, 3,600 bushels; peaches, 30,096 bushels; apples, 259,833 bushels; strawberries, 68,316 bushels; maple syrup, 2,588 gallons; and cannery tomatoes, 234,206 baskets.

Inspection and certification of cannery tomatoes was continued and, as a result of this service, there is prospect that some of the applicants will request inspection of green wrapped stock next

season. In connection with inspection of cannery tomatoes, approximately 2,315 demonstrations were given to growers to assist them in picking practices. Visits were made to fields to assist in determining the best time to harvest individual crops.

In conjunction with the Maryland Seed Certification Board, 1,500 pounds of tomato seed were certified and 5,040 one-hundred-pound sacks of Irish potatoes were inspected, tagged and sealed.

**New Cantaloupe Law**—Through efforts of growers, the Farm Bureau, members of the Legislature from cantaloupe producing sections of the State, and others, the last session of the Maryland General Assembly enacted a law designed to prevent shipment of green and immature melons from the State. Under the auspices of county agents, field meetings were held in four counties and a corps of trained and experienced men demonstrated proper maturity and advised concerning grading, packing and marketing containers in accordance with the new law. A similar service was rendered at the principal auction centers.

*New roadside market emblem adopted by the Maryland Farm Roadside Market Association.*

**Roadside Markets**—Organization of the Maryland Farm Roadside Market Association was perfected, with 16 farmers joining, ten of whom displayed the official roadside market sign. Assistance was given in establishment and maintenance of four farm women's markets.

**Market Reporting**—Market news reports, issued on fruits, vegetables, poultry, butter, eggs and livestock on the Baltimore market were continued and were published in the Baltimore press. A Market News Letter was issued monthly.

**Inspection for Spray Residue**—In cooperation with the State Horticultural Department and the State Board of Health,

analyses for arsenical residue on commercially produced apples were continued. Four hundred and fifty-eight samples from 87 orchards were examined.

**Marketing Codes**—Assistance was given producers and organizations representing various commodities in the preparation of codes in compliance with the Agricultural Adjustment Act. These included a code for the baby chick hatchery industry and for canning crops, and a plan for adjustment of tobacco production.

## POULTRY HUSBANDRY

ACTIVITIES in this field had a more or less direct bearing upon practically all of the many phases and problems of the poultry industry. Most of the lines of work carried on in previous years were continued, with some modification in the emphasis upon the different projects. In addition, a great deal of assistance was given leaders in the poultry industry in their efforts to develop plans and policies whereby the producers in this State could avail themselves of the opportunities offered by the new Farm Act.

Two chief problems of the industry on which effort was concentrated during the year were: 1. Poor management, resulting in low production and low returns; and, 2. Lack of coordination of efforts in the industry to improve practices, quality of products, and market conditions. Other problems given much attention were the prevalence of disease and parasites, with resulting high mortality of both young and old stock, and the high mortality in young and adult turkeys.

**Farm Egg Record Project**—With a view to assisting owners of farm flocks in determining and eliminating some of the practices that are responsible for low production in their flocks, a special record calendar has been prepared and furnished them for a number of years. They are aided in keeping complete records, and timely suggestions on poultry management are sent from time to time.

Conditions were relatively unfavorable to poultry raisers and there was not much encouragement from general business conditions for definite improvement in any respect. It is significant, therefore, that in the face of a very unfavorable feed-egg price ratio a slight increase in average production was shown in these demonstration flocks. It is an evidence of improved management

practices, especially the use of better bred stock and more skillful feeding, by those carrying on this work.

**Diseases and Parasites**—For six consecutive years a "Grow Healthy Chicks" program, emphasizing eight important sanitary measures, was pushed vigorously. During that time, ample data from result demonstrations were accumulated. The program was continued this year, but was confined to method demonstrations. A great many poultrymen have now adopted most of the recommended and demonstrated sanitary practices as part of their regular method of management.

**Turkeys**—Weather and market conditions were generally unfavorable, but practically all cooperators showed a net balance for the year. Special attention was given to reducing the mortality of both young and adult turkeys and the work was distinctly successful with the exception of losses sustained during unusually severe storms.

**Marketing and Organization**—An effort was made, in cooperation with State, county and local associations, to effect better coordination in educational, production, and marketing activities under planned programs. No new organizations were formed, principal attention being given to the programs of existing organizations and the development of marketing plans to supplement farm and home incomes.

## ENTOMOLOGY

CONDITIONS were more than usually favorable for development of certain insect pests and some unusual outbreaks were experienced. The lines of control work carried in previous years were continued and considerable attention was given to problems of somewhat recent development.

**Orchard Spray Service**—This service was conducted as in previous years and, in addition, consideration was given to the best means for meeting the newly announced spray residue tolerance. Due to the character of the season, it was necessary for field men to make many more orchard visits than heretofore. At the close of the season a survey of the principal commercial orchards, 32 in number, showed an average codling moth infestation of 8.7 per cent and 29.9 per cent stings. On the whole, the substitution of calcium arsenate proved fairly satisfactory. Owing

to the fear of excess residue and the economic condition of growers, many failed to apply the full spray schedule, which, no doubt, influenced materially the percentage of codling moth infestation. Result demonstrations with calcium arsenate were conducted in several orchards.

The spray residue situation was again handled in cooperation with the Department of Markets and the Commissioner of Foods and Drugs on the basis of pre-harvest sampling. This method again proved satisfactory and no seizures of Maryland fruit were made.

**Pea Aphis Control**—Demonstrations of spraying and dusting were conducted on about 20 farms in Garrett county, in cooperation with Senator Fooks, a canner located at Mountain Lake Park. Over 500 acres of peas were under contract for this particular factory and the aphis infestation was exceedingly severe in most instances. The demonstrations were decidedly successful from the standpoint of aphis control, but yields did not reflect the control, probably due to other factors not under control.

**Cantaloupe and Cucumber Spraying**—Demonstrations of bordeaux and arsenate sprays resulted in increased yields and higher quality and much more general acceptance of the spraying program as an essential part of producing cucumbers and melons.

**Tomato Canning Problems**—An unusual condition developed among canners of the Eastern Shore. Seizures had been made on account of the presence of maggots of Drosophila in the cans. After an investigation had been made by research forces and methods devised for preventing the recurrence of this condition, a campaign of education was carried on among canners and growers to enable them to put the preventive methods into effect. Regional meetings were held and other methods were employed in reaching those interested. The procedure recommended included purchase of tomatoes on the basis of Federal-State grades, culling all undesirable fruit, and a system of thorough washing.

**Other Insects**—A severe outbreak of the army worm over almost all of the Eastern Shore was checked by trenching, supplemented by post-hole digging and poison baits. Advice on control of white grubs was given in a large number of cases. In many cases the adults attacked shade trees and, in one case truck crops, and later in the fall grass land began to suffer from depredations of the larvae. Excellent control of flea beetles on tobacco

was obtained in demonstrations with barium fluosilicate. However, since it is impossible to combine this with bordeaux, the control of wild fire and mildew was not as good as is obtained with lead arsenate and bordeaux.

**Miscellaneous Activities**—The usual growing season correspondence and determination of insect pests was especially heavy. This involved a wide range of pests, including particularly termites, fly control on cattle, ticks in relation to spotted fever, biting flies and mosquitos in relation to an outbreak of Encephalitis in horses, the Japanese beetle, and flower and shrub insects. In most cases, farm visits and lectures before such organizations as garden clubs, fruit growers, and canners' associations formed the basis of these Extension efforts.

The mosquito survey in tidewater Maryland was continued in cooperation with the Bureau of Entomology.

## APICULTURE

A SPECIAL EFFORT was made this year to reach beekeepers who had not previously received help from the Extension Service. As a result, 108 new personal contacts were made, exclusive of contacts made at meetings and through correspondence.

In an effort to help beekeepers analyze their business, a schedule was prepared and sent to a selected group for trial. It is hoped that suggestions and criticisms arising from its use will form the basis for a standard yearly record sheet to be used in Maryland, and that its use will help honey producers toward more efficient management.

**Inspections and Disease Control**—During the year 65 apiaries were inspected, including 1,115 colonies. New infections of American foulbrood were found in five apiaries and a recurrence in two apiaries. When this disease was found it was dealt with summarily by burning. European foulbrood was located in three colonies. A proposed bulletin on bee diseases was prepared and is now in manuscript.

**Pollination Work**—It was only possible with the available force to extend aid to those orchardists who requested help, or who had been encouraged to use bees the preceding year. An

extension bulletin was issued entitled "Honeybees for Orchard Pollination."

**Honey Marketing**—The specialist was able in a number of cases to help beekeepers with a surplus of honey to dispose of it through other beekeepers with a more favorable market.

**Apicultural Survey**—In conjunction with other work, numerous data were accumulated which will be used in preparation of a general bulletin on bee culture in Maryland, a need for which is felt keenly.

**Maryland State Beekeepers' Association**—Assistance was given this organization in holding five meetings, well scattered over the State, so that beekeepers in nearly all sections had the benefit of the talks and discussions. Exhibits were prepared for a number of fairs.

## PLANT PATHOLOGY

INCREASE in the use of certified seed potatoes for control of virus and other diseases is an outstanding feature of the year. In the mountainous section of the State, where many seed potatoes are grown, production of certified seed increased from 29,452 bushels in 1932 to 44,231 bushels in 1933. Most of these potatoes will be planted in the State and will improve the quality of the crop next year. This is the result of a campaign being carried on with a view to encouraging the use of home-grown certified seed. In one community, 25,000 bushels of Maryland certified seed was used this year compared with 11,000 bushels used last year in the same community.

It has been observed that increased interest in improved plant disease control methods is a natural outcome of the present tendency of farmers to reduce their acreage of farm crops. When their interest ceases to be centered on expanding or maintaining their acreage, they begin to think more about growing products of better quality at lower costs, and find that control of diseases and insect pests is an important factor in that direction.

It is estimated that there was an increase of about 10 per cent in the number of farmers who treated their grain for smut, who practiced seed treatment, seed bed sanitation and crop rotation for control of sweet potato diseases, and who sprayed their cantaloupes, cucumbers, and potatoes for control of disease.

**Cereal Diseases**—Demonstrations of seed treatment for barley, oats and wheat, and seed selection of corn, were conducted by county agents.

**Orchard Diseases**—A spray service was maintained whereby orchardists were informed when to spray for best results, materials to use, and most improved practices.

**Sweet Potato Diseases**—Severe losses have been caused by storage rots, black rot, stem rot, and pock. As a result of demonstrations and meetings, a much larger number of growers are practicing methods of seed treatment and better seed bed sanitation and the losses are becoming smaller. The increased use of certified seed has also been an important factor.

***Laying a pipe line beneath a sweet potato plant bed in Wicomico County. Artificial heat has been found beneficial and practical in this type of bed on the lower Eastern Shore.***

**Tobacco Diseases**—Seed bed spraying and sterilization with steam were demonstrated and urged as methods for controlling some of the most destructive diseases of this crop. A new disease, downy mildew, which appeared in 1931, was present in most seed beds this year and caused a loss amounting to about two per cent of the value of the crop. Methods that give partial control were developed and demonstrated to growers.

**White Potato Diseases**—Work along this line has been a major activity for a number of years. Climatic conditions in Maryland are favorable for production of potato seed and production of certified seed is being encouraged. This year 72,572 bushels were eligible for certification, the largest amount in any year since the work was started. In addition to the greater income derived from use of high-quality, disease-free seed in producing potatoes, a profitable industry of considerable proportions has been developed in production and sale of seed potatoes.

Demonstrations were conducted with some of the desirable varieties of potatoes which are quite susceptible to virus diseases.

***A fine field of certified Irish Cobbler seed potatoes on the farm of J. A. Morgan in Garrett County.***

It was shown that even with varieties as susceptible as the McCormick, the number of affected plants can be reduced to as low as one per cent by tuber indexing and tuber uniting.

**Diseases of Other Crops**—More or less attention was given to diseases of many crops. Some of the practices demonstrated are: Use of Western grown bean seed for control of anthracnose and blight; use of yellows resistant varieties of cabbage; spraying and dusting cantaloupes, cucumbers and watermelons for control of blight, anthracnose and other diseases; and use of wilt resistant varieties of tomatoes for control of wilt.

**Boys' Club Work**—Progress in production of mountain grown certified seed, most of which is grown in Garrett county, is principally the result of boys' club work. In 1929, when 4-H potato club work was started, there were 24 growers who produced 6,952 bushels of potatoes eligible for certification on 27 acres. This year 61 growers produced 44,239 bushels eligible for certification on 152.5 acres. Most of the boys made some money on their potato projects, one making enough for his college education. Several boys have developed into certified seed potato growers.

## FORESTRY

WORK IN FORESTRY during the year was along five principal lines: (1) Farm Woodland Management; (2) Marketing and Utilization of Farm Forest Products; (3) Reforestation of Sub-marginal Farm Lands; (4) Junior Forestry; and (5) General Educational Work. The first two were considered as major projects. Junior Forestry Work received systematic attention this year for the first time.

**Farm Woodland Management**—By means of 11 demonstration meetings in six counties, instruction in developing profitable woodlands was given 235 farm woodland owners. Twenty-two demonstration tracts and four demonstration plots were set up to provide examples of profitable farm forestry. In addition, nine demonstration plots were located on the Seth Forest and three plots in the Green Ridge State Forest to illustrate the application of various cutting methods.

By means of individual instruction and by demonstrations, information was given a large number of woodland owners in estimating timber, fire control methods, cutting methods, and other practical points.

**Marketing and Utilization of Farm Forest Products**—Information along this line was presented at 15 meetings. Three summaries of forest products, prices and market conditions over the State were prepared and distributed. A system for providing marketing information to farm woodland owners was established. A survey of local and distant markets was started, with a view to discovering markets for those forest products which are difficult for woodland owners to utilize or sell.

**Reforestation of Submarginal Farm Lands**—Low prices of merchantable timber and scarcity of available cash continued

to have an unfavorable effect upon forest planting. However, there was considerable interest in special purpose planting, such as black locust for fence posts and spruce for Christmas trees. Eight planting demonstrations were established, 12 planting site examinations were made, and 10 old plantings were inspected.

**Junior Forestry**—This work was conducted with 4-H clubs and also with students in vocational agriculture. A complete and detailed outline of a first-year project for 4-H clubs was prepared and was adopted in a number of counties. Preliminary outline of a second year project was also worked out. A short course in forestry for vocational agriculture students was a distinct success.

## CANNING CROPS

WORK WAS CARRIED ON in all counties where canning crops are of major importance. Agencies cooperating were the Maryland Experiment Station, Department of Horticulture, Department of Markets, Tri-State Packers' Association, and canners and growers.

During the last few years there has been a general laxity of interest in canning crops by canners and growers, which was due to the low prices offered for canned goods and raw stock and to generally unsettled market conditions.

Crop prospects were good during the early part of the season, but a severe storm in late August resulted in heavy damage to yields and quality of all unharvested crops. This damage was estimated to be approximately 50% to 60% for tomatoes, 40% for snap beans, 30% for sweet corn, and 40% for lima beans.

**Tomatoes**—Extensive demonstrations with the Pritchard variety were conducted to compare its performance with the Marglobe and Tri-State varieties. Apparently it possesses many qualities which are desirable as a canning tomato, but it did not prove superior to Marglobe in yield and quality. It matures earlier and may be used on part of the acreage to lengthen the canning season.

Tomato seed saving and stock seed improvement work was continued in cooperation with the Tri-State Packers' Association. This included the Marglobe and Tri-State varieties and about 1,500 pounds of seed were certified.

A campaign was conducted to promote the use of cloth covered coldframes for production of early tomato plants. There was a substantial increase in the number of growers following this method.

The Maryland Ten-Ton Tomato Contest was carried on for the sixth year, with 257 growers enrolled. Four growers completed the contest with yields above ten tons per acre and became eligible for membership in the club.

**Snap Beans**—Result demonstrations designed to show the varieties best adapted for the canning industry and also the influence of stand upon yield were two principal lines of work carried on with snap beans. Records were taken on yield and resistance to disease.

***Dusting a cloth-covered tomato coldframe in this manner has saved many growers from loss by flea beetles and other insects and diseases.***

**Peas**—Field demonstrations with Maryland Alaska, a wilt-resistant strain developed by the University of Maryland, were arranged with canners to compare its performance with other commercial varieties. Distribution of 162 bushels of seed was made to canners in the Tri-State territory to observe vigor, uniformity, disease resistance, and yield. Other demonstrations

included such phases as time of planting, method of seeding, amount of fertilizer, resistance to various diseases, etc.

**Corn**—Work with seed corn consisted principally of cooperating with canners in selection of stock seed which will be grown for planting the commercial acreage. Observations were made on the performance of hybrid strains distributed by seed companies to canners to place in the hands of growers.

## TOBACCO

CONDITIONS with respect to marketing Maryland type tobacco have changed materially in recent years. The demand for such part of the crop as would grade as cigarette tobacco has continued good and it has sold at prices that returned to growers some profit. The portion of the crop, however, which fell into the lower grades has been difficult to market at prices covering the cost of production. Formerly a large percentage of these lower grades was disposed of through export markets, but recently these markets have largely disappeared. Consequently, there have been the problems of finding other markets for the lower grades and of reducing the percentage of these grades produced. These two problems have been the basis of Extension work during the year.

Tobacco was classed as a "basic" crop in the new Farm Act. The type of tobacco grown in Maryland does not properly fall into the general classification of types of tobacco, so that it was necessary to deal with it separately in working out a plan in accordance with the program of the Agricultural Adjustment Administration. Much time and effort were devoted to assembling and analyzing data, and in otherwise assisting the tobacco interests in developing a satisfactory plan. Numerous conferences were held by the tobacco specialist, county agents in the tobacco growing counties, officials of the Maryland Tobacco Growers' Association, leading growers in each county, and other members of the Service. As a result, a plan was adopted and approved by the Adjustment Administration. A campaign is now being launched in all the principal tobacco-growing counties of the State for the purpose of presenting to growers this plan for adjustment of their production and enlisting their participation.

**Cultural Activities**—Major features of the work in this line included: (1) Efforts to encourage use of improved varieties;

(2) Demonstrations of better seed and plant bed practices; (3) Encouragement of soil improvement methods; (4) Better housing facilities; and, (5) Work with 4-H tobacco clubs, exhibits and tours. Work in these lines is a continuation of programs in former years and decided results are evident. The crop this year, however, was damaged about 50 per cent by an exceptionally severe storm that occurred late in August.

**Marketing**—The outstanding activity in this field resulted from an act passed at the last session of the Maryland General Assembly, which provided for sale of Maryland tobacco on the basis of established grades. The first step was to formulate satisfactory grades, which necessitated collection of hundreds of samples. With the cooperation of Federal authorities, a set of standard grades for Maryland tobacco was adopted. Later the tobacco and marketing specialists of the Extension Service conducted a short course for those who might be employed as official graders.

It is believed that with the excellent service rendered by the Maryland Tobacco Growers' Association, the benefits to be derived from more general and systematic grading, and better adjustment of production to demand, there is reason for looking forward to much more stable conditions in marketing Maryland tobacco.

## ECONOMICS AND FARM MANAGEMENT

THE YEAR 1933 was outstanding in developments in the field of Agricultural Economics.

In the winter of 1932-33 the country was drifting into economic chaos. The growing restlessness of the people was spreading into the East.

A major cause of unrest was the tax situation in the counties. Tax payers' leagues were being organized in a number of counties, seeking tax relief. To provide an unbiased source of accurate tax information for Maryland people, an Extension circular, "The Tax Dollar," was prepared and distributed in all counties.

The outlook for prices of farm products was very discouraging. We were confronted with a continued low demand and increasing disparity between prices of farm products and prices of commodities bought by farmers. In order to analyze the economic

situation and to point out adjustments that might be made by farmers, an Outlook Report for Maryland was published and distributed widely. To supplement this report, a leaflet was prepared outlining a Farm and Home Relief Program for 1933. This leaflet was distributed generously and was used as a basis of discussions at many local meetings. It outlined in condensed form desirable farm practices that reduce expenditures, increase cash incomes, and improve the management of the farm.

It was not possible to obtain definite information on the effectiveness of these activities. County agents reported, however, that they gave assistance to 2,307 farms in making adjustments in crop and livestock programs.

**Farm Records**—Farm business analysis records of 140 farms were summarized and interpreted to the farmers who had completed records. New records were started for the coming year. The completed records indicated that those farmers had fared best who had been most economical in their expenditures, who had diversified their business, and who had obtained good crop yields and high production per animal at low cost. Material was prepared from the available farm business records to serve as a basis for analysis of other farms.

Enterprise records of 73 poultry farmers and 192 dairymen were summarized as a basis for intelligent poultry and dairy farm management. These records indicated that high returns per animal at low feed cost are necessary for successful livestock production.

**Farm Credit**—Cooperation was given to Federal Farm Credit authorities located in Maryland. Three production credit associations were formed in the State to supplement existing credit facilities, and 1,156 farmers were assisted in obtaining credit.

**Outlook**—In 1934, tremendous farm management problems confront Maryland farmers. Farm costs are rising rapidly, particularly prices of feed, labor and supplies. Greater economy in production, reduced total production, but increased output per man, more effective use of the best lands and a sound land use for the submarginal areas are problems which challenge our best thought and efforts in the coming year.

## AGRICULTURAL ENGINEERING

ALTHOUGH CONDITIONS did not permit as great activity in the line of building and improvements as would be the case in more normal times, there was great demand for assistance with a number of engineering problems on the farms.

**Milk Cooling Equipment and Methods**—New regulations regarding milk cooling, affecting some 5,000 Eastern Shore dairymen, were issued by Philadelphia distributors early in 1933. It was found that many impractical methods were being advocated, and that much impractical equipment was being offered for sale. Low cost equipment for small producers was designed. Recommendations were issued in "Milk Cooling Letters," and 18 meetings, attended by 1,613 dairymen, were conducted by the specialists. One hundred farm visits were made in connection with this project.

**Drainage**—A considerable revival of interest in tile drainage was evident. Eight surveys for drainage were made, involving 120 acres.

**Farm Structures**—For a number of years, sets of blue prints of plans of practically all kinds and types of farm buildings have been maintained in the offices of county agents. From these plans farmers are able to select a plan adapted to their need when they desire to construct or remodel a farm structure. Two hundred and ninety blue print plans for farm buildings and equipment were sent out in response to requests from farmers and contractors.

**Rural Electrification**—Interest in this subject continues despite the fact that not many rural people are able to install the electric power they desire. One of the features of the work this year was a demonstration of the use of electric heat in hotbeds. The hotbeds on four farms were equipped with electric heating cables and thermostats. This involved 116 square yards of hotbed and the plants were tomatoes, peppers, cantaloupes, sweet potatoes, and flowers.

**Machinery Repair**—One farm repair school was conducted and assistance was given to many in other ways.

## FARM STATISTICS AND CROP ESTIMATES

THE NEED AND DEMAND for adequate statistics of Maryland agriculture was much greater than ever before. Information regarding production, yields, acreages, and other factors in former years was absolutely essential in connection with programs of crop adjustment. The program of planned production launched during the year is dependent upon accurate knowledge with respect to all agricultural products and cannot be prosecuted intelligently without constant and up-to-date statistics and estimates.

The Extension Service maintains a specialist in this important line and the Division of Crop Estimates of the U. S. Department of Agriculture stations an agricultural statistician at the University of Maryland. In connection with the campaigns for reduction of wheat production, and similar campaigns for corn and hogs, it has been necessary to secure the services of a number of other workers in this field.

It is a pleasure to express the appreciation of the Service for the cordial and able cooperation received from Mr. Richard C. Ross, the Statistician in Charge.

## HOG CHOLERA CONTROL

THE AUTHORITIES in charge of hog cholera control who work closely with the Service report only 443 outbreaks for 1933, which is about 15% less than the average for the last 14 years. This is gratifying, as many people who had little if any previous experience in swine production attempted to raise hogs for home consumption. Methods used for preventing hog cholera and other diseases were unknown or little understood by most of these new feeders, and losses, together with spread of infection, were more prevalent than in farm groups.

About 77%, or 343 of the outbreaks, were of the backyard type, or where hogs are kept in pens or small lots. Approximately 23%, or 100 outbreaks, occurred on farms where hogs are bred and raised, but garbage feeding plants were maintained on 13 of these farms. There were, therefore, cholera outbreaks on only 87 farms where some care was used to prevent exposure to known sources

of danger. For the past few years, hog cholera has occurred on relatively few farms where hogs are kept under reasonably sanitary conditions. Outbreaks on such farms have become fewer each year.

Maryland records again indicate that approximately 90% of all cholera outbreaks are preventable by proper feeding and good management. Nearly 80% of all the outbreaks this year were caused by feeding cholera-infected pork trimmings in kitchen wastes, and garbage to susceptible hogs, and 10% were caused by buying sick or exposed stock, or permitting roving sick hogs to stray on the premises. The agencies often mentioned as spreaders of cholera, such as dogs, flies, birds, trucks, and the like, are possible sources, but are hardly significant as major factors. It is apparent that this disease may be prevented in the vast majority of cases by any swine producer who exercises care in the feeding and management of his herd.

The Maryland Plan for the Control of Hog Cholera is being more widely adopted, as its effectiveness is demonstrated. Cooperation of stockmen, veterinarians, county agents, and others interested in the swine industry, is necessary to prevent outbreaks and keep losses at a minimum. Such help has been generously given in the past and is as urgently needed in the future.

## GENERAL EDUCATIONAL EXTENSION

ONE of the most gratifying and, to my mind, most encouraging aspects of Extension work during the year was the continued, and even increased, interest in topics not directly associated with with the practical phases of farming and farm life. A growing interest in the more general and cultural subjects is evident from the increased demand for the services of the specialist in Extension Education. With the hearty cooperation of other specialists of the University and speakers from the Department and elsewhere, it was possible to partially meet the increasing demand for adult education.

Particularly notable is the interest shown by the women of the State in subjects such as parliamentary procedure. Three schools devoted to training and practice in this subject were most successful.

**Adult Education**—The fact that so great interest was manifest in the field of general adult education, notwithstanding the press-

ing problems and conditions confronting most of the people, is an evidence of their forward-looking attitude and their desire for continued improvement. It is not possible to estimate the extent to which demand for adult education in the general and cultural subjects would develop if facilities were available to permit giving it encouragement. Those who have tasted the benefits of education in the subjects associated with agriculture and home economics are anxious to expand their efforts into other fields. In addition, there are the many thousands who are engaged in other pursuits and have not had the opportunities for adult education which have been afforded rural people.

It has not been possible to expand work in this field during the year, and some retraction was necessary. It would, in my opinion, have proved an exceedingly wholesome influence during the period of economic stress if those seeking self-improvement could have been given aid in satisfying their desires. When conditions permit, there is a vast field awaiting this Service and this Institution in meeting somewhat adequately the desire for work in adult education, particularly in the cultural subjects, such as the arts and sciences.

## MISCELLANEOUS WORK

AS IN FORMER YEARS, the Service has received the hearty cooperation of those associated with other branches of the University. We are especially indebted to Dr. H. J. Patterson, Director of the Experiment Station and Dean of the College of Agriculture, for his cordial support and helpful suggestions at all times. Included among other specialists to whom acknowledgement is due are Professor J. E. Metzger, Dr. W. B. Kemp, Dr. DeVoe Meade, and Professors Geary Eppley, B. E. Carmichael, L. W. Ingham, W. E. Hunt, and others.

## STATE HORTICULTURAL DEPARTMENT

ADMINISTRATION of the State Horticultural Department has been for many years under the direction of the Extension Director. This arrangement has proved mutually helpful and economical in a number of respects. In many cases it is virtually impossible to differentiate between activities in control of insect pests and plant diseases and activities designed to give information for their control. Such difficulties are obviated when specialists

handle both lines of work. A more comprehensive statement of the activities conducted by the State Department of Horticulture is presented in a separate report.

## CONCLUSION

THIS REPORT is greatly reduced in order to meet the curtailment in funds available for printing. Many details and lines of work are eliminated, or mentioned but briefly to convey an idea of the many features and activities that come under the direction of the Service.

Fortunately, we have been able to maintain our force in full during the year. The spirit of the organization is to make sacrifices for the good of the whole. We hope that there are brighter days ahead not only for members of the Service, but for those whom we are endeavoring to serve.

The Service is indebted to the officials in charge of Extension Work in the U. S. Department of Agriculture for their sympathetic cooperation. Likewise, we are indebted to the State farm organizations, the Grange and Farm Bureau, for their assistance and encouragement.

I desire also to express my deep appreciation to all members of the staff and office-force for their loyal support and assistance in conducting the unusual emergency work of the year.

Grateful acknowledgement is also made of the splendid and sympathetic interest of President Pearson in furthering Extension work.

SUMMARY STATEMENT OF EXPENDITURES BY PROJECTS, SHOWING SOURCES OF FUNDS USED FOR

SUMMARY STATEMENT OF EXPENDITURES BY PROJECTS, SHOWING SOURCES OF FUNDS USED FOR EXTENSION WORK, FISCAL YEAR ENDED JUNE 30, 1933

| Projects | Total | Federal Funds | | | Offset Funds | Funds Not Used As Offset | | |
|---|---|---|---|---|---|---|---|---|
| | | Smith-Lever | Capper-Ketcham | Additional Cooperative | | College and State | County | Other |
| Administration | $16,844.52 | $6,268.74 | ..... | ..... | $6,579.81 | $3,992.47 | ..... | $3.50 |
| Publications | 12,270.66 | 4,879.75 | ..... | ..... | 3,472.07 | 3,802.25 | ..... | 116.59 |
| County Agent work | 130,161.72 | 34,652.28 | $15,290.00 | ..... | 30,961.47 | 13,352.47 | $35,895.00 | 10.50 |
| Home Demonstration Work | 100,056.13 | 11,566.37 | 10,786.61 | $5,532.83 | 29,339.76 | 9,897.45 | 28,062.00 | 4,871.11 |
| Nutrition | 3,260.33 | 1,396.41 | ..... | ..... | 1,757.19 | 106.73 | ..... | ..... |
| Clothing | 3,575.72 | 1,528.31 | ..... | ..... | 1,938.23 | 109.18 | ..... | ..... |
| Boys' Club Work | 6,136.63 | 2,077.34 | ..... | ..... | 2,889.72 | 185.43 | ..... | 984.14 |
| Agronomy | 5,055.11 | 1,367.73 | ..... | ..... | 2,937.32 | 742.75 | ..... | 7.31 |
| Animal Industry | 7,186.30 | 1,524.75 | ..... | ..... | 2,441.04 | 3,204.58 | ..... | 15.93 |
| Horticulture | 10,124.62 | 5,406.61 | ..... | ..... | 3,159.34 | 1,545.59 | ..... | 13.08 |
| Dairying | 11,318.30 | 1,763.71 | ..... | ..... | 3,066.60 | 5,623.89 | ..... | 864.10 |
| Rural Organization and Marketing | 13,558.05 | 1,334.62 | ..... | ..... | 1,000.00 | 11,207.68 | ..... | 15.75 |
| Poultry | 5,078.93 | 502.59 | ..... | ..... | 2,559.30 | 2,017.04 | ..... | ..... |
| Entomology | 32,552.22 | 1,203.33 | ..... | ..... | 100.00 | 31,204.74 | ..... | 44.15 |
| Pathology | 6,491.15 | 1,313.76 | ..... | ..... | 100.68 | 4,904.59 | ..... | 172.12 |
| General Educational Extension | 1,433.93 | ..... | ..... | ..... | ..... | 1,416.78 | ..... | 17.15 |
| Canning Crops | 10,818.57 | 1,733.27 | ..... | ..... | ..... | 8,676.82 | ..... | 408.48 |
| Farm Forestry | 2,228.90 | ..... | ..... | ..... | 1,778.85 | 450.05 | ..... | ..... |
| Poultry Marketing | 2,806.87 | 255.15 | ..... | 1,197.56 | ..... | 1,354.16 | ..... | ..... |
| Rural Engineering | 4,777.85 | 351.20 | ..... | 3,435.86 | ..... | 990.79 | ..... | ..... |
| Crop Statistics | 2,118.29 | ..... | ..... | 1,933.49 | ..... | 184.80 | ..... | ..... |
| Economics and Farm Management | 5,123.88 | 100.00 | ..... | 4,900.26 | ..... | 123.62 | ..... | ..... |
| Apiculture | 1,290.57 | ..... | ..... | ..... | ..... | 1,290.57 | ..... | ..... |
| Total Expenditures | $394,269.25 | $79,225.92 | $26,076.61 | $17,000.00 | $94,081.38 | $106,384.43 | $63,957.00 | $7,543.91 |

SUMMARY STATEMENT OF EXPENDITURES BY PROJECTS, SHOWING CLASSIFICATION OF EXPENDITURES FROM ALL FUNDS USED FOR EXTENSION WORK, FISCAL YEAR ENDED JUNE 30, 1933

| | Personal Service | Supplies and Materials | Communication Service | Travel Expenses | Transportation of Things | Printing, Binding and Cuts for Publications | Furnishing of Heat, Light, Power, and Elec. | Equipment | Miscellaneous | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| Administration | $8,674.04 | $1,863.52 | $1,696.94 | $48.30 | $1,937.01 | ..... | $679.36 | $770.12 | $1,175.23 | $16,844.52 |
| Publications | 7,917.45 | 200.08 | 1,094.54 | 77.44 | 25.70 | $2,804.25 | ..... | 59.14 | 92.06 | 12,270.66 |
| County Agent Work | 103,879.96 | 3,635.23 | 164.51 | 22,418.80 | 7.22 | ..... | 26.00 | ..... | 30.00 | 130,161.72 |
| Home Demonstration Work | 75,455.23 | 4,056.03 | 240.39 | 19,758.22 | 37.85 | ..... | 29.25 | 114.81 | 364.35 | 100,056.13 |
| Nutrition | 2,791.66 | 15.00 | ..... | 453.45 | .22 | ..... | ..... | ..... | ..... | 3,260.33 |
| Clothing | 2,941.66 | 103.71 | .60 | 504.42 | 1.03 | ..... | ..... | 22.55 | 1.75 | 3,575.72 |
| Boys' Club Work | 4,298.92 | 102.96 | 6.27 | 1,700.06 | 2.67 | ..... | ..... | ..... | 25.75 | 6,136.63 |
| Agronomy | 4,033.65 | ..... | 99.09 | 905.07 | 4.80 | ..... | ..... | 12.50 | ..... | 5,055.11 |
| Animal Industry | 6,079.19 | 4.90 | .40 | 1,100.81 | ..... | ..... | ..... | 1.00 | ..... | 7,186.30 |
| Horticulture | 8,800.00 | 60.31 | 32.60 | 1,181.71 | ..... | ..... | ..... | 50.00 | ..... | 10,124.62 |
| Dairying | 9,100.00 | 20.63 | 3.52 | 2,162.73 | .17 | ..... | ..... | ..... | 31.25 | 11,318.30 |
| Rural Organization and Marketing | 10,975.35 | 535.11 | 114.20 | 1,665.96 | 6.88 | ..... | ..... | 191.80 | 68.75 | 13,558.05 |
| Poultry | 4,183.33 | 27.86 | 85.53 | 729.78 | 6.22 | ..... | ..... | 46.21 | ..... | 5,078.93 |
| Entomology | 25,377.08 | 970.25 | 378.32 | 3,570.01 | 10.53 | ..... | ..... | 50.33 | 2,195.70 | 32,552.22 |
| Pathology | 4,696.65 | 85.88 | .50 | 1,682.76 | 17.78 | ..... | ..... | 7.58 | ..... | 6,491.15 |
| General Educational Extension | 785.88 | 6.00 | ..... | 632.70 | 4.35 | ..... | ..... | ..... | 5.00 | 1,433.93 |
| Canning Crops | 8,145.09 | 247.35 | 331.97 | 1,975.70 | 3.06 | ..... | ..... | 113.80 | 1.60 | 10,818.57 |
| Farm Forestry | 1,354.50 | 51.41 | .35 | 810.97 | 5.67 | ..... | ..... | 6.00 | ..... | 2,228.90 |
| Poultry Marketing | 1,950.00 | 7.20 | ..... | 842.85 | .12 | ..... | ..... | 6.70 | ..... | 2,806.87 |
| Rural Engineering | 3,316.70 | 77.71 | 1.73 | 1,381.71 | ..... | ..... | ..... | ..... | ..... | 4,777.85 |
| Crop Statistics | 2,050.00 | 19.90 | ..... | 48.39 | ..... | ..... | ..... | ..... | ..... | 2,118.29 |
| Economics and Farm Management | 3,972.59 | 168.01 | 40.27 | 936.23 | .75 | ..... | ..... | ..... | 6.03 | 5,123.88 |
| Apiculture | 900.00 | 10.50 | .28 | 379.79 | ..... | ..... | ..... | ..... | ..... | 1,290.57 |
| Total Expenditures | $301,678.93 | $12,269.55 | $4,292.01 | $64,967.86 | $2,072.03 | $2,804.25 | $734.61 | $1,452.54 | $3,997.47 | $394,269.25 |

## COUNTY AGENTS—(Continued)

| County | Name | Headquarters |
|---|---|---|
| Carroll | L. C. Burns | Westminster |
| Cecil | J. Z. Miller | Elkton |
| Charles | P. D. Brown | La Plata |
| Dorchester | W. R. McKnight | Cambridge |
| Frederick | H. R. Shoemaker | Frederick |
| Garrett | J. H. Carter | Oakland |
| Harford | H. M. Carroll | Bel Air |
| Howard | John W. Magruder | Ellicott City |
| Kent | J. D. McVean | Chestertown |
| Montgomery | O. W. Anderson | Rockville |
| Prince George's | W. B. Posey | Upper Marlboro |
| Queen Anne's | Kenneth Baker | Centerville |
| St. Mary's | G. F. Wathen | Loveville |
| Somerset | C. Z. Keller | Princess Anne |
| Talbot | R. S. Brown | Easton |
| Washington | M. D. Moore | Hagerstown |
| Wicomico | J. P. Brown | Salisbury |
| Worcester | R. T. Grant | Snow Hill |

## ASSISTANT COUNTY AGENTS

| | | |
|---|---|---|
| Allegany | Milo S. Downey | Cumberland |
| Baltimore | W. H. Carroll | Towson |
| Harford | G. W. Clendaniel | Bel Air |
| Kent | Stanley Sutton | Chestertown |
| Montgomery | A. A. Ady | Rockville |
| Prince George's | P. E. Clark | Upper Marlboro |

### Local Agents

| | | |
|---|---|---|
| Southern Maryland | J. F. Armstrong (Col.) | Seat Pleasant |
| Eastern Shore | L. H. Martin (Col.) | Princess Anne |

## HOME DEMONSTRATION AGENTS—1933

| County | Name | Headquarters |
|---|---|---|
| Allegany | Maude A. Bean | Cumberland |
| Anne Arundel | Mrs. Georgiana Linthicum | Annapolis |
| Baltimore | Anna Trentham | Towson |
| Calvert | Elaine Knowles | Prince Frederick |
| Caroline | Bessie M. Spafford | Denton |
| Carroll | Agnes Slindee | Westminster |
| Cecil | Priscilla B. Pancoast | Elkton |
| Charles | Mary Graham | La Plata |
| Dorchester | Hattie E. Brooks | Cambridge |
| Frederick | Helen Pearson | Frederick |
| Garrett | Margaret K. Burtis | Oakland |
| Harford | Catherine Maurice | Bel Air |
| Howard | Myrne L. Hendry | Ellicott City |
| Kent | Helen M. Schellinger | Chestertown |
| Montgomery | Edythe M. Turner | Rockville |
| Prince George's | Ethel M. Regan | Hyattsville |
| Queen Anne's | | |
| St. Mary's | Ethel Joy | Leonardtown |
| Somerset | Hilda Topfer | Princess Anne |
| Talbot | Margaret Smith | Easton |
| Washington | Ardath E. Martin | Hagerstown |
| Wicomico | Marian G. Swanson | Salisbury |
| Worcester | Lucy J. Walter | Snow Hill |

## LOCAL HOME DEMONSTRATION AGENTS

| | | |
|---|---|---|
| Charles, St. Mary's, Prince George's | Mrs. Arminta Watson Dixon | 1811 8th St., N. W., Washington, D. C. |
| Somerset | Mrs. Justine Clark | Princess Anne |

TECHNOLOGY AND SCIENCE ROOM